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ABSTRACT

A Michigan task force examined existing and needed services for students with attention deficit hyperactivity disorder (ADHD), to assist school districts in developing services and to create a systematic plan for statewide information dissemination regarding referral, assessment, identification, intervention strategies, and legal mandates. Individual sections of this report address: the historical perspective of ADHD, identification, legal mandates, assessment, school-based strategies, home-based strategies, medical interventions, transition, and collaboration and communication. Six recommendations emerged from the task force activities: (1) develop a document which addresses awareness and training needs; (2) create and implement an inservice and preservice training program; (3) provide opportunities for parents to attend conferences and training sessions which focus on effective collaboration, legal rights, and advocacy; (4) designate a professional staff member to coordinate student services and staff development; (5) provide transition planning; and (6) designate regular planning time for collaborative teamwork among the professionals involved. Twenty-three appendices include handouts for parents, checklists, lists of teaching strategies and student characteristics, information resources, a model district policy, information on medication, and an ADHD rating scale. (DB)

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Attention Deficit Hyperactivity Disorder

ADHD Task Force Report

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PREFACE

As Michigan develops a plan for the future, it is crucial that we make provisions to assure that all children are offered educational opportunities that will help them become productive members of our society. Recognizing that students with attention deficit hyperactivity disorder (ADHD) have needs that present a multitude of challenges to our educational system, Special Education Services and School Program Services established a statewide task force to make recommendations to the Michigan Department of Education. As parents and teachers ask school districts for guidance in evaluating and providing educational services for students suspected of having ADHD, it is crucial that Michigan school districts have a common framework. Therefore, the vision of the task force was to create a framework that school districts can follow as they seek to provide appropriate services to students with ADHD. The further intent was to develop a systematic plan for statewide dissemination of information regarding referral, assessment, identification, intervention strategies, and legal mandates.

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INTRODUCTION

Attention deficits, with or without hyperactivity, have a tremendous impact on the child, the family, and others in the child's immediate environment. Children with attention deficits encounter difficulty at home, in social settings, and especially at school. In recognition of this critical need area, the Michigan Department of Education, Special Education Services, sponsored a symposium in March of 1991. The intent was to increase knowledge in the field regarding attention deficit disorder/attention deficit hyperactivity disorder (ADD/ADHD) and identify major relevant issues that need to be addressed on a statewide basis.

As an outcome of the symposium, Special Education Services and School Program Services of the Michigan Department of Education collaborated in establishing an ADHD Task Force to examine issues and make recommendations. The Task Force was comprised of parents, general educators, and special educators, as well as an attorney and a physician. This twelve-member committee presented the following recommendations:

1. Develop a document which addresses awareness and training needs.

2. Create and implement an inservice and pre-service training program.

3. Provide opportunities for parents to attend conferences and training sessions which focus on effective collaboration, legal rights, and advocacy.

4. Designate a professional staff member at each building to: (a) coordinate services for students with ADHD and (b) coordinate staff development.

5. Provide transition planning (grade-to-grade and building-to-building) to enhance the educational prognosis of students with ADHD.

6. Designate regular planning time for collaborative teamwork between the professionals involved.

This Task Force report, which includes information relating to the identification and program needs of students with ADHD, is the result of the knowledge and expertise of this dedicated Task Force. Throughout this document, problems with attention deficits will be referred to as attention deficit hyperactivity disorder (ADHD) and attention deficit disorder undifferentiated (ADDU) or undifferentiated attention deficit disorder (UADD). The intent of the Task Force is not to validate a diagnostic label, but to address the needs of all students with attention deficits.

Belief Statement

The ADHD population displays an array of complex challenges. It is the belief of the Task Force that to effectively meet the diversity of student needs, the student, parent, school, and community professionals involved must: 1) develop a comprehensive understanding of the disorder; 2) work together collaboratively to develop individualized intervention plans; and 3) realize that ADHD is not necessarily a disorder that one grows out of, and that it may require the development of life-long compensatory skills and strategies.

Unless students, parents, and professionals work collaboratively to develop and put appropriate interventions in place, students with ADHD are at risk for major academic and social failure. To provide students with ADHD an equal opportunity to reach their educational potential, whether or not they qualify for special education or Section 504 services, those involved must constantly review medical and educational research and the services provided students with ADHD. The challenge belongs to us all.

Working Assumptions

Meeting the educational needs of students with ADHD presents challenges. If the needs of students with ADHD are to be met, the following concepts need to be honored:

Students with ADHD:

- Are a diverse population
- Have a biologically-based condition that may have life-long implications
- Are at risk for academic and social failure
- Have potential to be creative, useful, and productive members of society

These students deserve an education based on:

- An individualized, coordinated approach
- Involvement of the student, family, medical professionals, school personnel, and community service providers
- An outcome-oriented curriculum and articulated long-range plan
- A comprehensive understanding of the student's disability, abilities, and interests
- Intervention strategies and accommodations that go beyond medication
- Informed and involved mentors and care-givers

HISTORICAL PERSPECTIVE

Attention Deficit Hyperactivity Disorder is a diagnostic label that is currently used to describe a set of behaviors that have been recognized since the early 1900's as a behavioral condition in children, (Still, 1902). Descriptions of these behaviors have been consistently reported among researchers for the last sixty years. Bradley described institutionalized boys with ADHD-like behaviors in the 1930's and went on to demonstrate much of what we know about the effectiveness of treatment with stimulants. (Bradley, 1937)

The terms used to label this condition have changed significantly over time. Werner and Strauss documented behaviors that were hyperactive, distractive, impulsive, and emotionally unstable in 1941 and used the term "brain damaged." Over the next decade, this was refined to "minimal brain damage" or "minimal brain dysfunction." By 1960, there was a growing trend to label disorders with observable behavioral characteristics and the term "hyperkinesis" or "hyperactivity" evolved. During that period, professionals came to agreement that difficulties in attention and concentration were key elements of this condition.

By 1980, the official diagnostic term for this condition was Attention Deficit Disorder, but controversy about the key diagnostic features continued. At issue was whether it was possible to have a diagnosis of Attention Deficit Disorder without hyperactivity or if the hyperactivity was indeed a "required" characteristic. To reflect the latter shift in thinking, in 1987 the term was changed to attention deficit hyperactivity disorder with a separate category of attention deficit disorder undifferentiated. These are the current diagnostic labels as this document goes to press.

Research has indicated that significant problems with attention can exist without an increased level of activity. It has been noted that the female gender is more often associated with distractible rather than hyperactive behavior. It has become apparent that the 1987 nomenclature is not ideal.

The American Psychiatric Association publishes the *Diagnostic and Statistical Manual* which provides the criteria, descriptions, and definitions of psychiatric, psychological, behavioral, and developmental disorders of human behavior. This book is used as a diagnostic resource by a wide variety of professionals. A new edition, the *DSM IV*, is due for publication in 1993. Reports at this time indicate that the concept of an attention deficit may be revised to encompass a range of expression of symptoms and allow for a diagnosis along two paths, one characterized by more impulsive-hyperactive behaviors with inattention and a second characterized by inattention without significant impulse or hyperactive problems.

Frequent changes in the terms used to described ADHD have resulted in difficulty comparing ideas and research outcomes over the years. It is nonetheless encouraging that the process by which we label human behavior comes under such close scrutiny on a regular, systematic basis.

One of the current dilemmas that face educators, mental health and medical professionals is that of balancing a tendency to under or over-diagnose a condition as it receives a great deal of public attention. This document is one example of efforts carried out nationwide to provide appropriate information to those involved with children and families with ADHD that will appropriately increase awareness of the problems these families encounter and enhance opportunities for effective intervention.

IDENTIFICATION

Many of the characteristics of ADHD become apparent with the demands and environmental constraints of the student's academic program. Thus the question as to whether a child has ADHD often arises first in the school setting. To assist in determining whether a student has ADHD and to develop appropriate interventions, school personnel will often be requested to provide observational data, clinical input, and various kinds of documentation. In order to ensure that appropriate and consistent procedures are in place to obtain the goal of properly identifying an individual student as having ADHD, an understanding of the clinical characteristics of the disorder needs to be available to all school personnel.

One source for characteristics applying to ADHD is the *Diagnostic and Statistical Manual of Mental Disorders* - Third Edition, Revised (DSM III-R, 1987). This publication is widely accepted by professionals as a point of common reference for the description of many disorders. The manual describes ADHD characteristics as follows:

1. Disturbance of at least six months during which at least eight of the following are present:

   A. Often fidgets with hands or feet or squirms in seat (in adolescents, may be limited to subjective feelings of restlessness)
   B. Has difficulty remaining seated when required to do so
   C. Is easily distracted by extraneous stimuli
   D. Has difficulty awaiting turn in games or group situations
   E. Often blurts out answers to questions before they have been completed
   F. Has difficulty following through on instructions from others (not due to oppositional behavior or failure of comprehension)
   G. Has difficulty sustaining attention in tasks or play activities
   H. Often shifts from one uncompleted activity to another
   I. Has difficulty playing quietly
   J. Often talks excessively
   K. Often interrupts or intrudes on others, e.g., butts into other children's games
   L. Often does not seem to listen to what is being said to him or her
   M. Often loses things necessary for tasks or activities at school or at home (e.g., toys, pencils, books, assignments)
   N. Often engages in physically dangerous activities without considering possible consequences (not for the purpose of thrill-seeking), e.g., runs into street without looking

2. Onset before the age of seven.

3. Does not meet the criteria for a Pervasive Developmental Disorder.

As indicated in the *DSM III-R*, the individual must present a disturbance in at least eight (8) of the characteristics of ADHD for at least six months. However, what the *DSM III-R* does not directly suggest is that an individual who is identified as ADHD with a disturbance of 10 of the 14 characteristics may appear and behave significantly different from another individual also identified as ADHD with a different set of behavioral characteristics. What this means is the fact that an individual identified as ADHD may have a wide range of needs and behavioral issues that could be significantly different from another individual also identified as ADHD. This issue supports the need for identification of an individual with ADHD to be conducted through evaluation

on a case-by-case basis. A generic program for all students with ADHD will not be successful if the school staff does not consider this wide variation in needs and individual differences of each student identified as having ADHD.

Taking the *DSM III-R* criteria into account, Barkley (1990) developed the following "consensus definition" of ADHD.

> Attention Deficit Hyperactivity Disorder is a developmental disorder characterized by inappropriate degrees of inattention, overactivity, and impulsivity. These often arise in early childhood; are relatively chronic in nature; and are not readily accounted for on the basis of gross neurological, sensory, language, motor impairment, mental retardation, or severe emotional disturbance. These difficulties are typically associated with deficits in rule-governed behavior and in maintaining a consistent pattern of work performance over time.

A closer look at this definition will provide particular subset areas that the school staff should consider when suspecting a student of having ADHD. The subsets may be listed as follows:

1. A developmental disorder
2. Developmentally inappropriate degree of:
   A. Inattention
   B. Overactivity
   C. Impulsivity
3. Early onset
4. Relatively chronic in nature
5. Eliminating characteristics
6. Deficits in rule-governed behavior
7. Deficits in maintaining a consistent pattern of work performance over time

ADHD may coexist with other disorders such as learning disabilities, conduct disorders, and emotional impairments. The effects on the school environment for a student having ADHD may also consist of poor academic achievement, behavioral difficulties/conflict with school personnel, poor peer relationships, and low self-esteem. For the purpose of this section, a look at these subset areas should provide a more consistent and appropriate understanding and identification of ADHD.

Developmental Disorder

ADHD is a developmental disorder. The individual has not acutely acquired this disorder, nor will the individual grow out of this disorder over time. Certain characteristics of ADHD will be demonstrated at each developmental level through which the individual progresses. At a very young age the characteristics of difficulty attending to task, fidgetiness, and overactivity may be pervasive across all individuals of the same age and gender; however, for the individual who has ADHD, the severity of these characteristics may be significantly greater than the same age and gender peer. As the individual becomes older, the number of characteristics may overtly decrease

(e.g., the degree of restlessness may decrease with puberty); however, the difficulties in attending to task and impulse control may still be significantly greater than the same age and gender peer.

Developmentally Inappropriate Degrees of Inattention

Commonly under this area, the parent and/or the teacher may find themselves stating: "He doesn't seem to listen to the assignment," "I ask her to do something and she does something else," "He just doesn't seem to be on the right page at times," "Is he marching to a different drummer?" and "She never seems to be able to do her work unless I am right there to help her focus." According to Hale and Lewis (1979), inattention is a "multidimensional construct that can refer to problems with alertness, arousal, selectivity, sustained attention, distractibility, or span of apprehension." In regard to attention to task and detail, the student with ADHD will have greater difficulty attending to a task that appears repetitive, dull, boring, lengthy, and nonstimulating. Even the most rewarding of activity may quickly reach a point at which it appears to no longer provide the desired level of stimulation for the student with ADHD.

This issue has major ramifications for the school staff in their attempts to educate the student with ADHD. First of all, the curriculum and the scheduling of activities will need to be reviewed to determine an alternative method of providing information that will assist the student with ADHD in the ability to sustain attention (see section "School-Based Strategies"). Secondly, the school will need to determine whether the problem is one in which the student is distracted by other environmental activities, or is in fact removing themself from the activity due to the lack of stimulation. Even the most controlled environment for reducing distractibility may still cause a student with ADHD a degree of difficulty. Attending to the task may be difficult for the student when the task is not providing a degree of intrinsic stimulation.

This area of inattention does have direct impact on the student's performance in academic tasks. The failure to attend to the material, the failure to attend to the directions, and the failure to spend the required time to complete the assignment will be directly correlated to the failure to succeed in the educational environment. Also, students who have difficulty attending and sustaining attention to environmental variables may have difficulties in the area of organizational skills. Such students will have problems finding required materials in their desk or locker, may be late to class often, may require more time to complete an activity, etc. Such areas of disorganization and failure to attend to details will require a degree of modification and assistance by all school personnel to provide adequate training and materials to help the student with ADHD succeed in the educational environment.

Developmentally Inappropriate Degrees of Overactivity

This area of identification is often described as "hyperactivity." The student is described as overly fidgety, restless, and exhibiting inappropriate levels of motor activity associated with the presented task. Commonly under this area, the parent and/or teacher may find themselves stating: "He just can't sit still," "She is constantly moving about the classroom," "He squats in his seat while I am lecturing the class," and "Taps her pencil on the desk during the entire hour." The issues associated with overactivity tend to be across settings and of a significant nature to be distinguishable from the same age and gender peers. It has been argued that the student with ADHD is engaging in overactive behavior as a byproduct of impulsivity. In other words, the student with ADHD is having difficulty controlling his behavior and will act on his wants and desires in an immediate gratification method. This could also be considered true of the student with ADHD having the desire to provide a higher level of stimulation than provided by sitting still. This student will impulsively attempt to engage in a variety of activities (motor activity being one of these) to increase the level of stimulation to a desirable level. Therefore, the ramification for the

school personnel is to be aware of the time required for a student to remain seated and focused on a particular activity. As the length of the activity increases, the likelihood that the student with ADHD will engage in motor activity (at times inappropriate motor activity) will also increase.

Often, the school may make the assumption that if the student is afforded an hour-long gym class or a short outdoor recess, the likelihood that the youngster will still exhibit overactive behavior will decrease or be eliminated. This access to physical activity may give a sense of false hope in that the physical activity will only assist the student with ADHD to the extent that the time frames associated with less desirable/less stimulating activities are also lessened. An appropriate use of physical outlet for the student with ADHD is to incorporate such activities throughout the day and to make the required time sitting still in smaller time increments. School staff should not assume that opportunity to engage in a physical education class in the morning will remove the overactivity behavior for the rest of the day in a student with ADHD.

Developmentally Inappropriate Degrees of Impulsivity

This area is often described as "the student with ADHD did not take the time to stop and think before they acted." Commonly, the teacher and/or parent may state: "He always blurts out an answer before any other student can be given a chance," "She writes down the words on her spelling test too quickly which makes her make careless errors," "He always interrupts when I am talking to another student," and "Everything seems to be a race." Brown and Quay (1977) behaviorally defined impulsivity as "a pattern of rapid, inaccurate responding to tasks." Other factors that are associated with impulsivity may include poor sustained inhibition of responding (Gordon, 1979), poor delay of gratification (Rapport, Tucker, DuPaul, Merlo, and Stoner, 1986), or impaired adherence to commands to regulate or inhibit behavior in social contexts (Kendall and Wilcox, 1979).

Within the school environment, impulsivity tends to cause the school personnel the greatest degree of difficulty due to the fact that the student does not appear to pick up on well-established classroom and school rules, informal peer interaction/social interaction rules, and rules associated with performing academic tasks.

This area is also problematic for the student with ADHD. This student may not have the ability to control his/her impulses and will act inappropriately in a particular setting. The likelihood that peer interactions will become more difficult and the likelihood that the youngster will receive punishment for an impulsive act, becomes even greater for the student with ADHD.

Early Onset

According to the *DSM III-R*, the onset of ADHD symptoms must be present before the age of seven. Therefore, documentation through a social and developmental history will need to reflect that the concerns regarding inattention, overactivity, and impulsivity were present prior to the age of seven. The purpose for having a history of ADHD symptoms prior to the age of seven is reflected in the fact that the disorder is a developmental disorder. It should also be noted that the existence of the ADHD symptoms after the age of seven, with no indication that they existed prior to age seven, may lead the school diagnostic evaluation team to other diagnostic areas such as an affective disorder, learning disability, conduct disorder, thought disorder, or neurologic disorder.

Relatively Chronic in Nature

Once again, this diagnostic requirement lends credibility to the fact that ADHD is a developmental disorder. An acute case of attentional difficulties may be associated with environmental, school,

and social factors and may not result in a diagnosis of ADHD. In cases of acute problems of an attentional nature, it would be best to explore other factors that may influence attention deficit difficulties.

School personnel should also keep in mind that students with ADHD tend to be consistently inconsistent at times. Based on his or her ability to sustain attention, to sustain a degree of mental energy, and to control physical impulses, the student may appear to have control over his or her ADHD symptoms. However, the times in which the student with ADHD is able to achieve this degree of control may be directly related to the level of stimulation from the activity, the duration of the activity, and the level of support.

Eliminating Characteristics

Barkley (1990) states that the ADHD cannot be a result of:

- Gross neurological impairment
- Sensory impairment
- Language impairment
- Motor impairment
- Mental retardation
- Severe emotional disturbance
- Another health condition

Individuals who have one or more of the above listed areas of impairment may have associated attentional problems related to their impairment that appear similar to an individual with ADHD. However, such impairment, rather than ADHD, may be the primary causal factor of attentional problems. Such an individual may be more appropriately provided with service with his or her primary impairment in mind. Conversely, an individual with a primary impairment from the above list may also have ADHD.

Gross Neurological Impairment

An individual student may have a medical history of neurological, biological, and/or physical problems. Examples of possible impairments that may result in problems with attention, impulsivity, and hyperactivity are Tourette Syndrome; seizure disorder; migraine headache; Tuberous Sclerosis; Williams Syndrome; injury to fetus from infection, trauma, hypoxia; Fetal Dilantin Complex; Fetal Alcohol Syndrome; prenatal infection (i.e., CMV); and premature birth.

Additional areas of concern that may affect brain functioning and cause attentional difficulties are neurotoxic effects of lead, exposure to radiation treatment of a brain tumor, and teratogenic effects of tobacco/alcohol exposure. Thus the identification of an individual suspected of having ADHD requires a very thorough medical and social history.

Sensory Language, and Motor Impairment

Due to the nature of these impairments and their impact on the individual's daily functioning, there may be some difficulties in the area of attention, distractibility, and impulsivity. Examples of such impairments include, but are not limited to autism, traumatic brain injury, and cerebral palsy.

Mental Retardation

Based on a psychological evaluation, a student who obtains an intelligence quotient of 70 or below (mean = 100, standard deviation = 15) may be identified in the schools as mentally impaired (EMI, TMI, or SMI/SXI). Due to the degree of difficulty processing and comprehending information, an individual with a mental impairment may have difficulty sustaining attention to task and in completing activities. ADHD is a disorder that crosses all levels of intelligence and a student with a mental impairment may also have an attention deficit that is not the result of retardation.

Severe Emotional Disturbance

For some students, attentional difficulties and activity levels may be directly and acutely affected by an emotional reaction to distress. Due to these stressful events, the student may display clinical signs of depression and/or anxiety which may cause problems with attending, distractibility, and activity levels. Such symptoms may be interpreted as an attention deficit problem; however, the emotional disturbance would appear to be the primary concern and focus of treatment. Examples of stressful events that may cause a student to display acute characteristics similar to a student with ADHD would be the following: depression, anxiety, school phobia, family conflict, parental separation/divorce, death in family, loss of significant relationships through separation or death, and physical, sexual, or emotional abuse.

Deficits in Rule-Governed Behavior

In some classrooms, there are a certain set of rules established by the teacher that the students are required to follow. Such rules may consist of: "Raise your hand if you have a question;" "keep your hands, arms, and legs to yourself;" "respect the property of the other students;" "have your materials and books ready when you need them;" etc. Commonly under this area, parents of a child with ADHD or teachers of students with ADHD may find themselves stating: "He blurts out the answer before anyone else in the class can answer," "She knows what the rules are," "We have gone over this and over this but he still breaks the rules," "She keeps forgetting to turn her assignments in on time," and "He doesn't seem to want to work for the reward anymore."

In some settings, students will engage in a specific set of behaviors based upon the rules or conditions set forth by the environment. The rules may often specify the topography of the behaviors, the setting or context in which the behavior should and should not occur, and the time when the behavior should or should not occur. These rules may also incorporate an understanding of the consequences associated with engaging in the appropriate behavior, engaging in inappropriate behavior, and failure to comply to any requests or demands. Therefore, rule-governed behavior suggests that students will engage in the behavior due to the pre-specified description of the desired behavior and the resulting consequences. In order for a student to accomplish this goal of engaging in the appropriate behaviors based on the rules associated with that behavior, a student must have the following skills:

1. good short-term and long-term memory abilities that will allow the student to remember the rules from one setting to the next;

2. ability to control his or her disinhibition and impulsivity to stop and think about the established rules prior to engaging in the behavior;

3. ability to pick up on both verbal and nonverbal cues/reminders about the rules (body language of the teacher that can serve to warn the student of potential problems);

4. ability to listen to corrective feedback to ensure that the rule will be correctly adhered to in the future (learn from their mistakes); and

5. ability to be affected by the consequences associated with the behavior (willing to work for the established reward or to avoid the potential negative consequence).

In both social and academic environments, the student must be able to demonstrate the desired behavior associated with the rules. However, the student with ADHD may have difficulty remembering the classroom rules, remembering the resultant consequences for his or her behavior, difficulty controlling his or her behavioral impulses, and difficulty sustaining attention to the corrective feedback he or she is given. Such difficulties in following the rules for a child with ADHD may also appear in peer group interactions. When the peers have both informal and formal rules established, the child with ADHD may find it difficult to interact with them.

As indicated in the section "School-Based Strategies," the establishment of clearly defined rules, the use of powerful consequences, and the need to provide continuous feedback to the student with ADHD is a must. These activities are based on the understanding that the child with ADHD has a degree of difficulty in the rule-governed behavior area; however, this does not exempt the child from appropriate consequences being therapeutically applied based on the display of behavior. For the teacher, it means that the time required to visually, auditorally, and physically demonstrate the rules and the desired behavior may be lengthy due to this area of difficulty for the student with ADHD.

Deficits in Maintaining a Consistent Pattern of Work Performance Over Time

As indicated previously, a student with ADHD is often described as "consistently inconsistent." The student's performance on particular tasks can vary from minute to minute, hour to hour, and day to day. Often, the teacher and/or parent may find themselves stating: "I think he's lazy," "She did it yesterday, why can't she do it today?," "He is just out to get me," "It is a constant power struggle when we do spelling. One minute he knows how to spell the word and the next minute the word is a foreign object," "She just needs to apply herself more." Such statements demonstrate not only the frustration for the teacher and the parent but also a high level of frustration of the student/child.

There are many factors that may cause this level of inconsistency:

1. Mental energy for task

   A. Cognitive fatigue-misallocation of mental energy

   B. Poor sustained concentration/attention

2. The level of stimulation for the task

3. The time of day in which the task is presented

   A. Morning increases likelihood of higher levels of mental energy

4. The resultant consequences associated with completion of the task:

   A. Are the consequences provided sufficiently immediate, (or too delayed), consistent, and powerful or sizable enough (insatiability problem)?

5. The novelty of the task or the environment:

   A. New settings or materials

   B. Interactions with a new staff member or professional (psychological or medical testing environment)

Co-existing Disabilities

The student with ADHD may have difficulty in some of the following areas:

1. Inconsistent performance on work activities and assignments

2. Cognitive impulsivity - i.e., tends to rush through work without regard to quality of product, puts down any answer just to be finished, difficulty with long assignments and multiple choice tests

3. Disorganization of thoughts, performance, and materials

4. Poor written expression due to distractibility and impulsivity

5. Poor short-term and long-term memory

6. Poor self-monitoring

Along with the areas mentioned above, the student with ADHD may also experience difficulty in oral language, basic reading skills, listening comprehension, reading comprehension, emotional stability, and social skills. Therefore, the student with ADHD may meet the criteria of having a co-existing disability in the areas of: Learning disability, speech and language impairment, or emotional impairment.

The key factor associated with the possibility of a co-existing disability (e.g., ADHD and learning disability) is that the community and school professionals should recognize the need for a multidimensional intervention approach that addresses the individual needs of each student with ADHD.

Undifferentiated Attention Deficit Disorder

Professionals have had difficulty describing the concept of Undifferentiated Attention Deficit Disorder. In the previous *Diagnostic and Statistical Manual of Mental Disorders*- Third Edition (*DSM-III*, 1980) prior to revision, there existed two separate diagnostic categories of individuals identified as having an Attention Deficit Disorder (ADD). The first category identified persons who have an attention deficit disorder with hyperactivity (ADD with hyperactivity) and the second category described individuals who have an attention deficit disorder without hyperactivity (ADD without hyperactivity). In the current *DSM III-R*, attention deficit disorder without hyperactivity was renamed Undifferentiated Attention Deficit Disorder (UADD). In *DSM III-R* it is indicated that UADD is:

> "...a residual category for disturbance in which the predominant feature is the persistence of developmentally inappropriate and marked inattention that is not a symptom of another disorder, such as Mental Retardation or Attention Deficit Hyperactivity Disorder, or of a disorganized and chaotic environment. Some disturbances that in DSM III would have been categorized as Attention Deficit Disorder without Hyperactivity would be included in this category. Research is necessary to determine if this is a valid diagnostic category and, if so, how it should be defined."

Barkley states that:

> "UADD constitutes a different type of attention deficit - one probably involving focused attention and cognitive processing speed, rather than sustained attention and impulse control. Cognitively, children with UADD appear somewhat sluggish in responding to task; often have their awareness focused on internal events rather than external demands; and are typically slower in completing pencil-and-paper tasks. They also have considerably greater inconsistency in memory recall, particularly on verbal tasks. In their behavioral presentation, they are viewed by many as daydreamy, confused or lost in thought, apathetic or unmotivated, and at times slow moving."(Barkley, 1990)

Common concerns expressed by both parents and teachers regarding a student who displays attentional difficulties without hyperactivity are: "He just doesn't seem to focus on the work," "She looks like she is staring right through her paper," "He seems to be always thinking of something other than the assigned subject and materials," "She is always last in line and slow to get started," "He never gets excited about doing the work," and " She seems consistently tired and bored." These concerns are indicated when they appear at a significant rate as compared to the same age and gender peer.

The student with UADD may go unnoticed by the school staff due to less disruption, minimal hyperactivity, and minimal aggression displayed. This student may be more likely to be withdrawn from the peer group. However, it should be noted that the student with UADD may have an equal degree of difficulty in the academic environment as a student with ADHD. The minimal amount of work completed, the poor attention to detail, the number of careless errors, the poor comprehension, and inadequate written expression may also be observed in a student with UADD. It is this failure to succeed in the educational environment that would cause the parent, teacher and student a high degree of concern.

In assessing for UADD, the diagnostic evaluation team should consider the possibility that the characteristics and symptoms are very similar to other possible disorders (i.e., anxiety, depression, phobia). Such an individual may be more appropriately provided with service aimed at the primary impairment.

Prevalence Rates

Students with ADHD and UADD are thought to comprise approximately 3-8 percent of the school population, but the range has been sited from 3-20 percent. The prevalence suggest that minimally three out of 100 students will be diagnosed as having ADHD. In many school districts in the State of Michigan, the elementary classroom size is approximately 25-30 students. Given this figure, it is likely that one to three students per classroom will have problems with attention deficit. Therefore, it is important that every teacher, support staff and

administrator obtain the knowledge base regarding ADHD and how best to provide an educational program for these students.

ADHD is also one of the most frequently diagnosed disorders of childhood and accounts for 30 to 40% of the referrals to child counseling centers. The ratio of males to females is 3 to 1 in the community and 6 to 1 in clinical settings.

LEGAL MANDATES

There are three basic federal laws that have potential implications for schools and parents as they attempt to address the needs of children with ADHD. These are the Individuals with Disabilities Education Act-Part B (IDEA or Part B), Section 504 of the Rehabilitation Act of 1973 (Section 504), and the Americans with Disabilities Act (ADA).

Part B/Michigan Mandatory Special Education

A. General Provisions

Part B is a special education law that provides federal funding to support special education services to students in certain categories of disabilities named in the law. These categories include such disabilities as mentally impaired, emotionally impaired, learning disabled, physically and otherwise health impaired, and speech and language impaired. Periodically, Part B is "reauthorized" by Congress. It was last reauthorized in 1990, and, at that time, Congress also reviewed the language of the law and amended it to cover two new federal disability categories, specifically traumatic brain injury and autism. There was considerable debate at the time over whether to add the category of ADHD. However, the U.S. Department of Education opposed adding ADHD as a separate category, and Congress opted instead to solicit public comment on the issue. This was accomplished in 1991. On September 16, 1991, the Office of Special Education and Rehabilitative Services (OSERS) issued a joint memorandum with the Office for Civil Rights (OCR) in which OSERS clarified how Part B could apply to students with ADHD even though ADHD had not been added as a separate eligibility category under federal special education law.

Part B requires school districts to conduct a multidisciplinary evaluation of all children ages 3 through 21 who are suspected of having one of the named disabilities and needing special education and related services as a result of this disability. If the child meets eligibility criteria and is in need of special education and related services, the school district is required to provide a free appropriate public education (FAPE) in the least restrictive setting based on its assessment of the child's individual needs. The plan for delivering such special education and related services is called the individualized education program or IEP. In order to receive federal special education dollars, states must have laws and rules that, at a minimum, implement federal mandates. Michigan has opted to provide broader coverage than Part B and mandates special education services birth through age 26 or graduation from high school, whichever occurs first.

B. ADHD and the Special Education Evaluation

In the September 16, 1991, memorandum, OSERS indicated that while ADHD is not on the Part B list of disabilities per se, a child with ADHD may be eligible for services under Part B because he or she meets the criteria for eligibility under one of the listed disabilities. The most likely possibilities, as suggested by OSERS, are learning disabled (LD), emotionally impaired (EI), and physically and otherwise health impaired (POHI). In Michigan, the Revised Administrative Rules for Special Education specify minimum evaluation requirements for these eligibility categories.

For example, under Rule 340.1713, a determination of LD eligibility must be made by a te m consisting of the child's regular teacher (or equivalent) and at least one person qualified to conduct individual diagnostic examinations of children, e.g., a school psychologist, teacher of the speech and language impaired, or teacher consultant. The multidisciplinary team must identify a severe discrepancy between ability and achievement which is not primarily the result of a vision, hearing, or motor handicap, mental retardation, emotional disturbance, autism, or environmental, cultural, or economic disadvantage.

Similarly, Rule 340.1706 requires that a determination of EI be based on data provided by a psychologist or psychiatrist and by a social worker. This multidisciplinary team must rule out behaviors that are primarily the result of intellectual, sensory, or health factors, and behaviors that solely reflect environmental, cultural, or economic differences.

The third category suggested by OSERS is POHI. In the September 16, 1991, letter, OSERS stated that its list of chronic or acute health problems in the Part B definition of POHI was not exhaustive, and that it could include chronic or acute impairments that result in "limited alertness" which adversely affects educational performance. This obviously opened the door to possible eligibility under the Part B POHI category for children with ADHD. In Michigan, the POHI rule is Rule 340.1709. This rule requires that POHI eligibility be determined through demonstration of a physical or health impairment which adversely affects educational performance and which may require physical adaptations in the school environment. The multidisciplinary evaluation team for POHI must include an approved physician and at least one teacher or other specialist with knowledge in the area of the suspected disability.

SECTION 504

A. General Provisions

In contrast to Part B, Section 504 is not a special education law that provides federal funding to facilitate special education programs and services. Rather, Section 504 is a a civil rights statute that prohibits discrimination on the basis of handicap. The regulations implementing Section 504 require districts to evaluate students who, because of a handicap, need or are believed to need special education or related services, including regular education adaptations. Section 504 also requires districts to provide a free appropriate public education (FAPE) in the least restrictive setting to eligible students. The law applies to any entity that receives federal financial assistance and thus applies to every public school district in the state of Michigan. While there are no federal funds flowing from Section 504 itself, the ultimate sanction for failure to comply with Section 504 requirements is the withdrawal of federal financial assistance.

In further contrast to Part B, Section 504 has a functional rather than categorical definition as to what constitutes a handicap in order to be covered by its provisions. Thus, there is no list of eligible handicaps in Section 504 or in the regulations that implement Section 504. Instead, a person is handicapped under Section 504 if that individual has a physical or mental impairment that substantially limits a major life activity, has a record of such an impairment, or is regarded as having such an impairment. A major life activity includes the activity of "learning." "Substantially limits" is not defined in the regulations, and it is only through recent litigation under Section 504 that it has become clear that achievement scores per se may be too narrow an index of learning when other indicia such as grades and teacher comments do not correlate with achievement test results.

All students who are eligible under Part B will also be eligible under Section 504. For these students, adherence to Part B requirements will meet Section 504 requirements regarding evaluation and FAPE. However, there may be students who will not quality for Part B eligibility, but who will qualify as "handicapped" under Section 504. For those students, districts must comply with Section 504 regulations and district policy and procedures developed to implement these Section 504 regulations.

While Part B and Michigan mandatory special education rules are quite specific in terms of time lines for evaluation, evaluation criteria, and procedural safeguards, Section 504 regulations are very general in nature and allow a great deal of latitude to school districts to develop their own procedures and policies for implementing Section 504 within the broad parameters set out by Section 504 regulations.

B. ADHD and Section 504 Evaluation

Section 504 regulations on evaluation require that a school district conduct an evaluation when any student, because of his or her handicap, needs or is believed to need regular education accommodations, special education, or related services. This must be done before any initial placement and before any subsequent significant change in placement. However, because there are no eligibility categories under Section 504, there are no checklists for eligibility criteria, and there are no rules as to who conducts an evaluation other than a generalized statement that tests and other evaluation material must be administered by trained personnel in conformance with the instructions provided by their producer. As with Part B, under Section 504 a school district must draw upon information from a variety of sources. Under Section 504, these sources include, but are not limited to, aptitude and achievement tests, teacher recommendations, physical condition, social or cultural background, and adaptive behavior. While Section 504 does not use such Part B terms as "multidisciplinary evaluation team" or "IEP," it does require that placement decisions be made by a group of persons which shall include persons knowledgeable about the child, the meaning of the evaluation data, and placement options. OCR, the enforcement agency for Section 504 within the U.S. Department of Education, has been silent on the issue of who can determine eligibility under Section 504 when the child is suspect of having ADHD. OCR has indicated that it intends to leave this issue for the various states to decide for themselves.

Specific Application of Part B and Section 504 to ADHD

A. Evaluation

School districts may not refuse to evaluate a child thought to be handicapped as a result of ADHD merely because ADHD is not a category under special education, since the child may nonetheless be eligible under special education categories of LD, EI, or POHI, or may qualify for services under Section 504. It is not unusual for parents to seek a private medical evaluation, obtain a diagnosis of ADHD and then come to the school seeking special education services or Section 504 accommodations. It is important for parents, physicians, and schools alike to understand that a medical diagnosis does not guarantee eligibility under either Part B or Section 504. Why not? First, a medical diagnosis of ADHD in and of itself is insufficient information upon which to make a determination of eligibility. This is because Part B requires a multidisciplinary evaluation team, and Section 504 requires that evaluation data be multi-sourced. Many physicians are not aware of the multidisciplinary/multi-source requirement, or do not have access to such a system in making their medical diagnosis. Second, there must be

an adverse impact on learning to the degree that the child is "handicapped." There have been cases where a child has been medically diagnosed as having ADHD where there has been no adverse effect on, or substantial limitation of, learning in the school setting.

If a parent informs the school that his or her child has or is suspected of having ADHD, the school district has the right to do some initial checking into school performance before making a determination whether it will launch into a full-scale evaluation under Part B or Section 504. This initial checking may involve such steps as talking with the parent and classroom teacher and reviewing school records (attendance, grades, achievement/aptitude scores). It should be done within a reasonable time frame and not as a means of avoiding or deferring action. If, as a result of its preliminary check, the district sees no evidence of a possible disability or handicap in the school situation and determines not to conduct a special education/Section 504 evaluation, the district must provide the parent with notice of this decision and the parent's right to challenge the refusal to evaluate through a due process hearing.

Under both Part B and Section 504, it may be perfectly possible to determine the eligibility of a child suspected of having ADHD without conducting a medical evaluation. However, if a medical evaluation is required to determine eligibility, it is a related service that is to be provided at no cost to parents. The related service of medical evaluation required to determine eligibility is to be distinguished from ongoing medical service (e.g., treatment, follow-up) which is not a related service or school responsibility. A school district may take advantage of third party funding, such as Medicaid or private insurance, to defray the cost of such evaluations. However, the use of private insurance must be with the parents' informed consent. Should a school district's use of third party insurance deplete the parents' overall coverage or result in increased premiums, this would be a "cost" to the parents and would violate Part B/Section 504 requirements. The district would then need to reimburse the parents for such "cost."

Although a parent may always seek a private evaluation, neither Part B nor Section 504 would require that a school district reimburse the parent for the cost of such evaluation unless the school district inappropriately refused to conduct an evaluation upon notice of a suspected handicap, or unless the district's evaluation was inappropriate.

B. Free Appropriate Public Education

Once a child is found to "qualify" under one of the listed disabilities in Part B or under the functional definition of handicap set forth in Section 504, a school district is under a legal obligation to provide a free appropriate public education (FAPE). Part B defines FAPE as special education and related services; Section 504 regulations define FAPE to include regular education accommodations and special education or related services. A school district develops a FAPE for a student who is eligible under Part B by convening an Individualized Educational Planning Committee (IEPC) meeting, which, in turn, develops an individualized education program (IEP). A FAPE for a student who is eligible under Section 504 is developed by convening a meeting with a group of persons knowledgeable about the child, the evaluation data, and placement options.

In the joint OSERS-OCR memorandum of September 16, 1991, OCR provided the following description of regular education accommodations contemplated under Section 504:

> Examples of adaptations in regular education programs could include the following: Providing a structured learning environment; repeating and simplifying instructions about in-class and homework assignments; supplementing verbal instructions with

visual instructions; using behavioral management techniques; adjusting class schedules; modifying test delivery, using tape recorders, computer-aided

instruction, and other audio-visual equipment, selecting modified textbooks or workbooks; and tailoring homework assignments.

Other provisions range from consultation to special resources and may include reducing class size; use of one-on-one tutorials; classroom aides and note takers; involvement of a 'services coordinator' to oversee implementation of special programs and services, and possible modification of nonacademic time such as lunchroom, recess, and physical education.

Neither Part B nor Section 504 requires school districts to obtain medication for students with ADHD who are found to be handicapped under either law. However, if the child with ADHD is found to be handicapped under Part B or under Section 504, the administration of medication provided by the parents is a related service or reasonable accommodation that must be provided as part of FAPE. Administration of medication includes monitoring to assure that the student actually takes the medication at prescribed times during the school day. Failure to monitor the administration of medication constitutes a violation of the FAPE requirement. Finally, the school district cannot condition the provision of Part B or Section 504 services on a parent obtaining medication for his/her child with ADHD, even though it is the district's opinion that the child could be educated in a less restrictive setting if taking medication.

Under Part B, there is specific statutory language that requires the IEPC to consider transition services (defined in full in the Transition chapter) in devising a FAPE for students beginning at age 16, or earlier if appropriate. Although there is no specific parallel language in Section 504 or its implementing regulations, legal commentators have inferred at least some transition responsibilities from a Section 504 regulation dealing with nonacademic services. This provision requires a district to assure students who are handicapped equal opportunity for participation in personal/academic/vocational counseling, guidance, or placement services offered by the district and to assure that students who are handicapped are not counseled towards more restrictive career objectives than students who are not handicapped with similar interests and abilities. OCR has held that this regulation requires school districts to inform students who are handicapped of special testing provisions for college entrance exams and to provide equal counseling opportunities with respect to making application to post-secondary schools. Congress is currently considering amendments to Section 504 which may include express transition language.

Summary of Part B and Section 504 Legal Mandates

In summary, a student who is suspected of having ADHD or who has been medically diagnosed as having ADHD may be handicapped under Part B. In this case, the student must meet the eligibility criteria for a specific category (the most likely possibilities being the categories of "emotionally impaired," "learning disabled," or "physically and otherwise health impaired"). Furthermore, the student may qualify under Section 504 even if not eligible under Part B. To qualify under Section 504, the child must demonstrate a physical or mental impairment that substantially limits a major life activity (usually learning). A medical diagnosis of ADHD does not guarantee eligibility under either law.

If a child is eligible under Part B or Section 504, he or she is entitled to a free appropriate public education (FAPE) in the least restrictive environment (LRE). FAPE options under special education law include special education and related services. FAPE options under Section 504 include regular education accommodations and special education or related services. What FAPE is for any particular child will depend on the unique individual needs of that child, as determined by a group of persons knowledgeable about the child, the evaluation data, and placement/program options.

A child previously determined ineligible for special education services under Part B of the Individuals with Disabilities Education Act (IDEA) and the Michigan Revised Administrative Rules for Special Education may nonetheless qualify for special education if the child is "handicapped" under Section 504, and special education is deemed necessary to accommodate the child's needs. If the child is eligible for special education under Part B, the funding for any needed special education services will come from special education sources. In the event the child is not eligible under Part B, but is eligible for services under Section 504, and the child's needs are so intense as to require special education, such services must currently be funded by general education dollars.

Americans with Disabilities Act

Signed into law on July 26, 1990, the Americans with Disabilities Act (ADA) is a complex civil rights statute that, in essence, expands Section 504 from the public to the private sector. Like Section 504, it prohibits discrimination on the basis of disability and focuses on equality of opportunity to participate in aids, benefits, and services provided by entities covered under the Act. Provisions of the law become effective at various times ranging from 30 days to 3 years from the date of its enactment.

Titles II and III of the ADA went into effect on January 26, 1992. Title II of the ADA applies to all local governmental entities, including local and intermediate school districts, whether or not these entities receive federal financial assistance. Title III of the ADA applies to public accommodations, which include private but not parochial schools. Both Title II and Title III are intended to provide protection to individuals with disabilities that is at least as great as that provided under Section 504. However, the ADA regulations are silent on such issues as evaluation and FAPE. Therefore, it is likely that IDEA-Part B and Section 504 will continue to define the parameters for the specific educational rights of students with ADHD.

ASSESSMENT

For the past several years, school district personnel have struggled with their role in the assessment process of the student suspected of having ADHD. The parent(s) of the student with ADHD have also struggled in their attempts to obtain assistance from the school in order to ensure appropriate educational services are provided to their child. This struggle continues to occur by both parents and school staff. However, additional information regarding the interpretation of IDEA - Part B and the interpretation of Section 504 have lead school districts to develop evaluation procedures to help ensure that appropriate educational services and accommodations are provided to a student with ADHD.

DuPaul proposes that the following questions be raised when assessing a student suspected of ADHD (DuPaul, 1992):

1. Does the student exhibit a significant number of behavioral symptoms of ADHD according to parent and teacher report?

2. Does the student exhibit ADHD symptoms at a frequency that is significantly greater than that demonstrated by children of the same gender and mental age?

3. At what age did the student begin demonstrating significant ADHD-related behaviors and are these behaviors currently evident across many situations?

4. Is the student's functioning at school, at home, and with peers significantly impaired?

5. Are there other possible deficits (e.g., learning disabilities) or factors (e.g., teacher intolerance for active behavior) which could account for the display of ADHD symptoms?

The above listed questions may raise concerns for the parent only, the teacher only, or both parent and teacher. However, when these concerns are identified and when they significantly impact the student's ability to function in school including both academic and social situations, there needs to be an effective way of assessing the difficulties that the student is experiencing in order to enhance the possibility of future interventions and accommodations.

If the parents have concerns regarding the potential likelihood that their child has ADHD, they have available to them three possible options regarding the evaluation process.

One option available to the parent is to request an evaluation by the school to determine whether their child, who is suspected of having ADHD, may qualify for services under Section 504. Because only special education and related services can be obtained under IDEA, this option would be appropriate in those circumstances where the parents felt that any problems associated with the suspected ADHD could be appropriately addressed by modifications in the regular education setting. A Section 504 evaluation would determine whether there exists a "physical or mental impairment that substantially limits a major life activity such as learning." The group of individuals conducting the evaluation will determine the degree of limitation in the student's ability to learn based on behaviors of concern. Thus, eligibility for programs and services will be determined whether or not the diagnostic label of ADHD is established.

A second option available to the parent is to request an evaluation of the student on the basis of a suspected handicap under IDEA. The parent may make a referral for special education because they suspect their child is handicapped and is in need of special education. The school will have 30

school days to establish a multidisciplinary evaluation team (MET) to conduct an assessment to determine whether the student qualifies under an existing category of handicapping conditions such as learning disabled (LD), emotionally impaired (EI), or physically and otherwise health impaired (POHI). These categories exist under the Michigan Revised Administrative Rules for Special Education. Due to the fact that ADHD is not identified as a separate disability category under IDEA or Michigan rules, the evaluation that the MET conducts will not necessarily reaffirm or assess whether or not the child is ADHD, but will instead determine whether the students meets eligibility criteria for one of the existing categories. Thus, if the parent chooses only this option, the results of the evaluation by the MET may indicate that an attention deficit problem exists, but may or may not indicate a specific diagnoses of ADHD.

A third option for the parent is to obtain an evaluation by clinical sources outside of the school environment. This assessment process would need to be initiated by the parent. If this occurs, the school should make themselves available to the clinical source conducting the assessment in order to provide objective data to assist in the proper diagnosis and treatment. This clinical assessment that would occur outside of the school system may or may not result in a diagnosis of ADHD. If the diagnosis of ADHD has been made by an outside source, the parent should provide this information to the school. The school would then be aware of the fact that the student may qualify for services under Section 504 or under special education services IDEA - Part B (as described in the "Legal Mandate" section of this document).

Therefore, based on these three options there will exist three separate but overlapping methods of evaluation. (See Figure 1)

Diagnosis of ADHD

To conduct an assessment to diagnose ADHD, the evaluation team should implement the following procedure:

Based on DuPaul (1992), there are three primary components of the assessment:

1. Screening
2. Multimethod Assessment
3. Interpretation of the Results

Screening

Based on the characteristics of Attention Deficit Hyperactivity Disorder, the student may exhibit some of the following signs within the classroom setting:

1. Difficulty with paying attention and sustaining attention during instruction in relation to their peers;
2. Inconsistent completion of independent tasks;
3. Inability to remain seated at appropriate times;
4. Displays of impulsivity and disruptive behaviors.

As indicated in the "Identification" section of this document, the teacher would need to observe these characteristics and refer to their level of significance in relation to the student's peers. The parent may also be expressing some concerns about the student in the following areas:

1. Difficulties in completing homework assignments;
2. Consistently late to events or family activities;
3. Extremely disorganized with his or her possessions and materials;
4. Making careless errors in judgment based on impulsive acts.

During this screening process, the teacher or parent may indicate that the student does not show signs of hyperactivity, but does appear to have several of the characteristics of an attention deficit disorder when the concerns revolve around attention to task and distractibility.

At this screening stage, the school may suggest that both the teacher and the parent complete a behavior rating scale that has been professionally identified to determine the frequency and severity of possible ADHD symptoms. This implementation of the rating scales at the screening level allows for more specific information regarding the areas of concern at a very early stage. If it is determined that there is cause for concern to suspect ADHD, then the completion of the rating scales will help initiate the evaluation process.

In the case of a *parent rating scale*, some examples include:
Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1991)
Conners Parent Rating Scale - Revised (CPRS-R; Goyette, Conners, & Ulrich, 1978)
ADHD Rating Scale (DuPaul, 1991)
Home Situations Questionnaire- Revised (HSQ-R; DuPaul & Barkley, 1990)
Attention Deficit Disorders Evaluation Scale, Home Version/School Version (ADDES-HV, ADDES-SV; McCarney, 1989)

In the case of a teacher rating scale, some examples include:
In regard to *behavioral issues*:
ADD-H Comprehensive Teacher's Rating Scale (ACTERS; Ullmann, Sleator, & Sprague, 1985)
Teacher Report Form of the Child Behavior Checklist (TRF-CBCL; Achenbach & Edelbrock, 1983) Note: Does not have normative data for children under the age of 6
Conners Teacher Rating Scale - Revised (Goyette et al., 1978)
School Situations Questionnaire - Revised (SSQ-R; DuPaul & Barkley, 1990)
Self-Control Rating Scale (SCRS; Kendall & Wilcox, 1979)
Attention Deficit Disorders Evaluation Scale, Home Version/School Version (ADDES-HV, ADDES-SV; McCarney, 1989)

In regard to *social skill issues*:
Social Skill Rating System (Gresham & Elliot, 1990)
Walker-McConnell Scale of Social Competence and School Adjustment (Walker & McConnell, 1988)
Attention Deficit Disorders Evaluation Scale, Home Version/School Version (ADDES-HV, ADDES-SV; McCarney, 1989)

In regard to *academic achievement difficulties*:
Academic Performance Rating Scale (DuPaul, Rapport, & Perriello, 1991)
Attention Deficit Disorders Evaluation Scale, Home Version/School Version (ADDES-HV, ADDES-SV; McCarney, 1989)

Multimethod Assessment

In the multimethod assessment, the evaluation team will utilize several assessment tools to assist in the determination of a possible attention deficit problem (with or without hyperactivity). The different assessment pieces which the evaluation team should consider employing are:

Parent Interview
Teacher Interview
Student Interview
Review of School Records
Parent Questionnaire and Rating Scales
Teacher Questionnaire and Rating Scales
Direct Observation of Behavior Across Settings (lunchroom, playground)
Collection of Academic Classroom Performance Data
Psychoeducational Assessment
Previous Psychoeducational Assessment
Medical Examination
Review of Medical Records (if available)

Parent Interview: A member of the evaluation team should contact the parent to obtain social/medical history and information on any current issues associated with the suspected ADHD. In this interview, the evaluator would need to obtain information regarding:

the frequency and severity of behavioral problems,
the possible correlation with physical factors from pre-, peri-, post-natal complications,
the student's developmental history with information regarding onset of the problem,
the possible correlation with other environmental factors (i.e., family disruptions),
the possible correlation with other psychological factors (i.e., anxiety, depression), and
the possible impact of genetic factors (i.e., father also exhibiting signs of ADHD).

Teacher Interview: The teacher(s) would be able to provide information regarding the ability to sustain attention and the areas of difficulty for the student. In this interview process, the evaluator would attempt to obtain information regarding:

the frequency and severity of behavioral problems,
the areas of difficulty for the student in both academic and social situations,
the areas of success for the student in both academic and social situations,
the most effective methods of instruction for the student,
the current academic schedule for the student (time of day, academic v. nonacademic areas)
the most effective methods of behavioral intervention for the student,
the level of interaction in social settings with peers and the development of peer relationships.

Student Interview: The child may also serve as a valuable resource to provide information regarding the severity and nature of the suspected ADHD. In the student interview, which commonly occurs prior to psychoeducational assessment, the evaluator may attempt to obtain information regarding:

the student's perception of the concerns associated with his or her behavior,
the areas in which they find difficult to master,
the areas in which they feel most successful,

the student's method of coping with the pressures associated with home and school activities, and the student's perception of the development of peer interaction and social activities.

Review of School Records: Historical data is available in the student's school records. In these records, the evaluator should be able to obtain information regarding:

the onset of difficulties in the academic environment,
the previous comments made by past teacher(s),
the trend in success or failure within the school environment,
the areas of strengths and weakness based on subject matter,
the level of perceived social interaction success or difficulty.

Parent Questionnaires and Rating Scales: This area has already been briefly discussed in the "Screening" phase of assessment. However, if a rating scale has not yet been completed by the parent(s), then it would be a valuable exercise to have the parent complete one of the previously described rating scales. These scales will provide a large amount of information in a very short period of time. With a reliable and valid rating scale, the evaluator will be able to obtain information regarding the student in relation to other children of the same age and sex.

Teacher Questionnaires and Rating Scales: This area has also been briefly discussed in the "Screening" phase of assessment. In obtaining a rating scale from a teacher, it is important to recognize the amount of time and history that this teacher has had with this student. The more opportunities the teacher has had to interact with this student, the more reliable the data will be in regard to the behavioral issues. In some instances, more than one teacher may be requested to complete the rating scales in order to ensure a more accurate picture of the student. With some rating scales there are both long and short versions of the scale. The longer versions will give more data regarding particular behavioral characteristics; however, they may be time consuming for the teacher to complete. A shorter version will also give you adequate information regarding the behavioral issues associated with ADHD; however, the amount of data necessary to develop a clinical opinion may be limited. In some settings, the shorter version may be used as a measurement tool during the process of working with the student with ADHD.

Direct Observation of Behavior Across Settings: In order to validate the assessment measurement tools, it is important that the evaluator take the time to observe the student in his natural environment. Students who have ADHD may do very well in a novel, one-on-one testing environment with the evaluator. In this evaluation environment, they may not exhibit many of the characteristics of ADHD, thus making it difficult to reach a clinical opinion. Observation in the natural environmental setting provides good information regarding:

the position of the student's desk,
the amount of contact with the teacher,
the length of the assignments,
the mode of instruction (i.e., lecturing, group),
the possible auditory and visual distracters,
the degree and frequency of peer interaction,
the implementation of a behavioral program,
the severity of the problems,
the student's method of organization of materials and activities,
the student's ability to transition from one activity to another,
the method in which the teacher informs the student about his or her daily routine and schedule,
the amount of work completed as compared to their peers, and

the degree of difficulties in structured classroom settings versus nonstructured settings, e.g., lunchroom, playground.

Direct Observation of Behavior Across Settings: There are also specific behavioral observation forms that will assist the evaluator in coding the classroom observation. Such coding systems include:

Restricted Academic Situation Coding System (Barkley, 1990)
Hyperactive Behavior Code (Jacob, O'Leary, & Rosenblad, 1978)
Classroom Observation Code (Abikoff, Gittelman-Klein, & Klein, 1977)
Consultant Social Interaction Code (Hops & Greenwood, 1988) - playground settings

Collection of Academic Classroom Performance Data: During the teacher interview and during the direct observation of behavior across settings, the evaluator should attempt to review the products of the student's school work. This review will provide information in regard to:

areas of strength and weakness,
the ability of the student to organize his or her thoughts and put them in a final form,
the degree of careless errors (i.e., spelling, written expression), and
the common areas of success or failure based on particular subject areas.

This information may be cross-referenced with previous school records and psychoeducational assessment scores.

Psychoeducational Assessment: The administration of intelligence tests and achievement tests can assist in identifying areas of strength and weakness. These psychoeducational assessment measures do not directly evaluate the possibility of ADHD. For example, the freedom from distractibility formula associated with the Weschler Intelligence Scale for Children - Revised has not been shown to be a reliable measure of difficulty with attention and distractibility. Therefore, the scores obtained on a psychoeducational assessment alone should not be used to determine ADHD. What these tests do provide are:

a measure of the areas of strength and weakness,
the method of approaching a particular problem under controlled settings,
the potential for success with direct observation and supervision of an activity,
the behaviors exhibited by the student in a testing situation, and
the possibility of co-existing areas of disability (i.e., learning disability, speech and language).

If emotional or psychiatric issues appear to be a factor during evaluation, then the psychologist may consider the need to do further testing in the area of personality assessment.

Previous Psychoeducational Assessment Data: If there exists data from previous assessment activities, then this information may be valuable in the attempt to determine the onset of the problem and the degree to which the ADHD issues have developed. Significant differences in previous psychoeducational testing may reflect additional factors that may be influencing behavior that appears to be of an attention deficit nature.

Medical Examination: As indicated in the "Identification" section of this document, there may exist some underlying medical factors that may be causing the individual to be exhibiting symptoms similar to ADHD symptoms. In several cases in which ADHD has been diagnosed, the student may benefit from medication to assist in his or her ability to sustain attention and control

impulsivity. For further information regarding the medical examination, please refer to the section of this document entitled, "Medical Interventions."

Interpretation of Results

Due to the fact that the student with ADHD is often consistently inconsistent, a multimethod assessment approach will help to overcome the limitations of the assessment instruments and balance out strengths and weaknesses. If only one method of assessment is attempted, then the assessment may not adequately address all of the issues and concerns associated with ADHD.

For the interpretation of the results of the assessment, DuPaul (1992) indicates that the evaluator needs to go back to the original questions. The questions to be answered are:

1. Number of ADHD symptoms?
2. Frequency of ADHD-related behaviors?
3. Age of onset?
4. Problem behaviors occurring across settings?
5. Functional impairment?
6. Other factors accounting for ADHD?

The multimethod assessment should assist the evaluation team in answering these questions and reaching a clinical opinion regarding the student's potential of having ADHD. When debriefing with the parent and the teacher(s), the first part of this discussion would center on these questions. The second part of the debriefing would be to take the information obtained through the assessment process and begin the dialogue with the parent and teacher(s) on the most effective intervention strategies. For a description of these strategies, please refer to the sections on "School-Based Strategies" and "Home-Based Strategies."

In summary, the assessment measures described above are comprehensive in nature. They are intended to assist in diagnosing ADHD. As indicated previously in this section, the method of assessment that may occur in a clinical setting to diagnose ADHD may be very similar in nature to the assessment measures utilized by the school to determine eligibility under IDEA - Part B or under Section 504.

Developing An Intervention Plan

After an evaluation has taken place, a careful analysis of cognition, behavior, environmental circumstances, coping styles and strengths must be undertaken. The more comprehensive the description of the student, the more meaningful a set of interventions will be.

A student's parents, teachers and the student with ADHD should have input in the planning stage.

Identifying strengths, or "islands of success" for these students may help in determining ways to generate other successes and increase self-esteem. For example, a very verbal student with written expression difficulties may be allowed to take tests orally.

Interventions and accommodations should have a one to one correlation with identified problem areas. However, if a change of behavior is being sought, school personnel should not try to tackle all of the areas of concern at once. Goals should be prioritized, and one or two goals focused on at a time. Behavior change should be regarded as a "process" and must be monitored.

The planning team should agree upon a method for subsequent monitoring of student's progress in response to various intervention efforts. A time-frame should be set up to evaluate the results of these efforts. It is important to involve parents and the student in this ongoing process.

The plan should be written in order to establish a record. Those responsible for implementing interventions should be named. A case manager may need to be assigned to monitor daily/weekly reports, provide feedback, and oversee completion of assignments.

It is important to share information obtained through the evaluation process with parents and the student (who is age appropriate). This helps the student "own" the problems he or she is experiencing. The student can begin to find ways of dealing with named problems and see himself or herself as a more active participant in his or her own education. The goal is to move towards more independence, self-sufficiency, and self-advocacy.

Questions to Ask Upon Completion of an ADHD Evaluation

1. What, if any, are the co-existing learning disabilities or areas this student appears weak in? What effect will these have on learning and the classroom experience? (Seek specific examples.)
2. What subject areas or activities may be most difficult for this student?
3. What kind of compensatory strategies can be implemented to help this student?
4. What accommodations should be made with regard to: homework, test taking, long-term assignments, written assignments, large-volume reading assignments, worksheets
5. How might classes be scheduled for optimal benefits?
6. What one or two "stop" or "start" behaviors are the most important to begin working on? How will this be done? Who will be responsible for carrying out the plan? How will success be measured? For what time period will strategies be tried?
7. What kinds of organizational help does this student need?
8. What are this student's strengths and how can they be used to develop other skills?
9. What type of rewards would be the most useful?
10. Would this student benefit from - use of a scribe, note taker or word processor to complete written assignments?
11. Where and by whom should this student be seated in the classroom?

12. How could "choices," "novelty," and "legitimate movement" be incorporated into this student's day?

13. What support services that are available might benefit this student?

14. What kinds of preteaching should be done so this student can benefit more from lessons? vocabulary review, study guides, advanced organizers, cognitive maps, outlines

15. How can I protect this student's self-esteem?

16. If this student feels overwhelmed by expectations, how can he or she safely communicate that?

Figure 1: Assessment Measures of ADHD under IDEA - Part B and Section 504

Assessment of ADHD:

Such assessment components may include, but are not required:
- Parent Interview
- Teacher Interview
- Student Interview
- Review of School Records
- Parent Questionnaire and Rating Scales
- Teacher Questionnaire and Rating Scales
- Direct Observation of Behavior Across Settings
- Collection of Academic Classroom Performance Data
- Psychoeducational Assessment
- Previous Psychoeducational Assessment Data
- Physical/Medical Examination

Team Members:
Such members may include, but are not limited to:
- Parent(s)
- Student
- Teacher(s)
- Psychologist
- Social Worker
- Physician

Diagnosis Based On:

Diagnostic and Statistical Manual III-Revised

314.01 Attention Deficit Hyperactivity Disorder
- Disturbance of at least six months duration
- Demonstration of at least eight of fourteen behavioral characteristics
- Significant behavioral characteristics when compared to peer of same mental age
- Onset before the age of seven

314.00 Undifferentiated Attention Deficit Disorder
- Persistence of developmentally inappropriate and marked inattention

Assessment Under IDEA
Specific Learning Disability (LD):

Such assessment components may include, but are not limited to:
- Parent Interview
- Teacher Interview
- Student Interview
- Review of School Records
- Collection of Academic Classroom Performance Data
- Psychoeducational Assessment
- Previous Psychoeducational Assessment Data

Multidisciplinary Evaluation Team (MET):
Student's regular teacher (or equivalent)
And at least one person qualified to conduct individual diagnostic examinations of children:
- School psychologist
- Teacher of speech and language impaired
- Teacher consultant

Eligibility Based On:

Michigan Revised Administrative Rules for Special Education
Rule 340.1713: Specific Learning Disability
- Disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which manifests itself in an imperfect ability to listen, think, speak, read, write, spell, or to do mathematical calculations.
- The student does not achieve commensurate with his or her age and ability levels when provided with learning experiences appropriate for the student's age and ability levels in one or more of the areas of oral expression, listening comprehension, written expression, basic reading skill, reading comprehension, mathematics calculation, or mathematics reasoning.
- The student has a severe discrepancy between achievement and intellectual ability in one or more of the areas listed previously, as determined by the multidisciplinary evaluation team.
- The student shall not be identified if severe discrepancy is primarily a result of visual, hearing, or motor handicap; mental retardation; emotional disturbance; autism; or environmental, cultural, or economic disadvantage.

Figure 1: Assessment Measures of ADHD under IDEA - Part B and Section 504

Assessment Under IDEA
Emotionally Impaired (EI):

Such assessment components may include, but are not required:
- Parent Interview
- Teacher Interview
- Student Interview
- Review of School Records
- Parent Behavior Rating Scales
- Teacher Behavior Rating Scales
- Direct Observation of Behavior Across Settings
- Collection of Academic Classroom Performance Data
- Psychoeducational Assessment
- Previous Psychoeducational Assessment Data
- Review of Psychiatric Records (if available)
- Review of Medical Records (if available)

Multidisciplinary Evaluation Team (MET):
- Student's regular teacher (or equivalent)
- School psychologist or psychiatrist
- School social worker

Eligibility Based On:

Michigan Revised Administrative Rules for Special Education, Rule 340.1706: Emotionally Impaired
- Manifestation of behavioral problems primarily in the affective domain, over an extended period of time, which adversely affects the student's education to the extent that the student cannot profit from regular learning experiences without special education support.
- Manifestation of one or more behavioral characteristics: Inability to build or maintain satisfactory interpersonal relationships within the school environment. Inappropriate types of behavior or feelings under normal circumstances. General pervasive mood of unhappiness or depression. Tendency to develop physical symptoms or fears associated with personal or school problems.
- Includes persons who also may exhibit maladaptive behaviors related to schizophrenia or similar disorders.
- The student shall not be identified if socially maladjusted or primarily the result of intellectual, sensory, or health factors or due to environmental, cultural, or economic differences.

Assessment Under IDEA
Physically and Otherwise Health Impaired (POHI):

Such assessment components may include, but are not required:
- Parent Interview
- Teacher Interview
- Student Interview
- Review of School Records
- Direct Observation of Behaviors Across Settings
- Collection of Academic Classroom Performance Data
- Psychoeducational Assessment
- Review of Medical Records
- Medical Examination

Multidisciplinary Evaluation Team (MET):
Student's regular teacher (or equivalent) and/or school psychologist, school social worker and/or other school personnel, and at least one of the following:
- orthopedic surgeon
- internist
- neurologist
- pediatrician
- any other approved physician as defined in Act. 368 of the Public Acts of 1978 of the and/or other school personnel Michigan Compiled Laws

Eligibility Based On:

Michigan Revised Administrative Rules for Special Education
Rule 340.1709: Physically and Otherwise Health Impaired
- Manifestation of a physical or other health impairment which adversely affects educational performance and which may require physical adaptions within the school environment.
- The child shall not be identified based solely on behaviors relating to environmental, cultural, or economic differences.

Figure 1: Assessment Measures of ADHD under IDEA - Part B and Section 504

Assessment Under Section 504:

Such assessment components may include, but are not required:

- Parent Interview
- Teacher Interview
- Student Interview
- Review of School Records
- Parent Questionnaire and Rating Scales
- Teacher Questionnaire and Rating Scales
- Direct Observation of Behavior Across Settings
- Collection of Academic Classroom Performance Data
- Psychoeducational Assessment
- Previous Psychoeducational Assessment Data
- Review of Medical Records (if available)

Section 504 Evaluation Team:
A group of persons which shall include persons knowledgeable about the student, the meaning of the evaluation data, and placement options. Such members may include, but are not limited to:

- Student's regular teacher (or equivalent)
- Additional teachers involved in the educational planning for this student
- School counselor
- School social worker
- School psychologist
- Principal

The Section 504 evaluation must be drawn from a variety of sources.

Evaluation Procedural Requirements for Both Section 504 and IDEA:

- Tests and other evaluation material have been validated for the specific purpose for which they are used and are administered by trained personnel in conformance with the instructions provided by the producer.
- Tests and the evaluation materials include those tailored to assess specific areas of educational need and not merely those which are designed to provide a single intelligence quotient.
- Tests are selected and administered so as best to ensure that, when a test is administered to a student with impaired sensory, manual, or speaking skills, the test results accurately reflect the student's aptitude or achievement level or whatever other factor the test purports to measure, rather than reflecting the student's impaired sensory, manual, or speaking skills (except where those skills are the factors that the test purports to measure).
- No final determination of whether the student is a handicapped individual within the meaning of Section 504 will be made by the district without informing the parent or guardian of the student concerning such proposed determination.
- With regard to a student who is determined to be handicapped under Section 504, but who is not handicapped under IDEA, the district shall conduct a reevaluation of the student:
  1. Prior to any significant change in placement;
  2. More frequently if conditions warrant;
  3. If the student's parent or teachers reasonably request an evaluation.

NOTE: The evaluation procedures to be followed may, but need not be, all those evaluation procedures which are followed for evaluating handicapped students who are suspected as handicapped under P.L. 94-142 (IDEA).

Eligibility Based On:

An "Individual with Handicaps" defined under Section 504 means:

> any person who "has a physical or mental impairment which substantially limits one or more major life activities; or has a record of such an impairment; or is regarded as having such an impairment." Such major life activities include: caring for one's self, performing manual tasks, walking, seeing, hearing, speaking, breathing, and learning.

SCHOOL BASED STRATEGIES

Attention Deficit Hyperactivity Disorder is the most common disorder affecting school-aged children. Though the student with ADHD is often of average or above average intelligence, his/her academic performance is seriously compromised by inattention, distractibility, impulsivity, disorganization, memory problems, difficulty with written tasks, and many times, hyperactivity. The student with ADHD also fatigues easily and has difficulty sustaining the effort needed to overcome these problems. His/her performance is inconsistent. It is also common to have co-existing learning disabilities, language disorders, and social skills deficits.

These deficits are magnified in a setting such as school where there are constant demands to perform and demonstrate knowledge in ways which are difficult for the student with ADHD. Frustration, emotional outbursts, anxiety, depression, humiliation, and low self-esteem can be the end result. However, when teachers with an understanding of ADHD use problem-solving approaches that allow the student with ADHD to learn to compensate for these difficulties, the outcomes improve significantly. Weiss and Hechtman (1986) report that when adults who were hyperactive as children reassessed their school experiences, many reported that a teacher's caring attitude, encouragement, extra attention, and guidance were "turning points" for them.

The most effective approach for creating a positive educational outcome for the student with ADHD begins with early identification and intervention. Sometimes, pharmacological intervention is deemed appropriate and the student will be placed on medication as part of his/her total treatment plan. Some prescribed doses may need to be administered at school (see chapter on Legal Mandates). When this is the case, designated school staff must take responsibility for storing the medication safely and monitoring the timely dispensation of such doses. Due to the forgetfulness and organizational deficits of students with ADHD, this responsibility may include sending for the student at the prescribed time in order for him or her to receive the medication in an effective manner. Whatever must take place, it is extremely important that the student receive the prescribed dose at the prescribed time. It's also critical that this be handled in a sensitive and discrete manner that is respectful of the student's right to confidentiality regarding his/her use of medication.

It has been estimated that 70-80 percent of students with ADHD can benefit significantly from the appropriate use of medication. Best practices suggest that medication alone must never be considered sufficient and a comprehensive educational assessment must be done to identify the learning style and specific academic abilities and disabilities of the student with ADHD. This basic understanding of the student's learning profile is essential to the development and implementation of an effective educational plan that addresses the individual behavioral and academic needs.

An effective educational plan will also include strategies to help the student successfully manage the less structured classes and/or periods of his school day, such as: Gym, Music, and Art classes, bus travel, lunch time, recess, and the times between classes. For some students with ADHD, these activities are not only overstimulating, but several of them (bus travel, lunch time, and recess) also typically occur at times when the effectiveness of medication is at its lowest point. Consequently the student with ADHD may have more difficulty controlling his or his impulsive behavior during such times and may need accommodations and strategies to help him or her successfully negotiate these periods of the day. For instance, frequently a student's medication has not reached its full effectiveness before he or she boards the school bus in the morning, and it has lost its effectiveness by the time he or she boards the bus after school. Therefore it is extremely helpful if the bus driver is informed about ADHD and understands that it is not uncommon for such a student to need daily reminders to stay seated during the bus ride, or that he or she may display silly and/or impulsive behavior at the bus stop and on the bus. The bus driver needs to be

sensitive to the fact that such students often have poor peer relationships as a result of their disability.

Depending on the type of medication, a student's level of medication may be at its lowest effectiveness by mid-day. Many students eat little or no lunch because the medication suppresses their appetite, thus giving them even more unstructured time. Again, because many such students may have few friends and may not have the social skills to interact properly in a large group setting, it would be important for those supervising lunchroom or recess activities to understand the implications of this and to implement strategies that will help such students to head off problems before they begin.

It is essential that the student, parent(s), and all of the student's teachers be well-informed about ADHD and also understand the specific ways in which it impacts upon this particular student's ability to learn and perform. It is important to remember that the student with ADHD does not choose to have difficult behavior or learning and performance problems. They are part and parcel of the disorder and require understanding and effective management. Encourage the student with ADHD to be an active participant in the development of their educational and behavioral plan. An effective plan should: (1) Include appropriate strategies, interventions, and modifications; (2) recognize and build on the student's strengths; and (3) teach the student how to compensate for areas of disability.

The success of the educational plan will be influenced by: (1) how well it is tailored to meet the student's individual needs; (2) the student's attendance at meetings and participation in helping to develop the plan; (3) the attitudes of the student, teachers, and parent(s) regarding ADHD and its management; (4) consistent application of interventions and strategies; (5) positive reinforcers; and (6) cooperation and frequent communication between school and home.

It is critical to individualize the plan to meet the needs of the student with ADHD. There is no cookbook approach that is right for all. It is important to set realistic expectations for each and to implement those interventions and strategies that will allow the student the best chance to succeed. It is also critical to be responsive to the needs of teachers for training and support.

Remember - there is no cure, but there is effective management of ADHD!

Environmental Modifications

- Avoid assigning student to "open classroom" or "split classroom" settings
- Seat where most visual distractions are behind student
- Seat away from auditory distractions such as heaters, air conditioners, etc.
- Seat near teacher and appropriate role models, but still as part of the group
- Surround by model students
- Create a structured environment with predictable routines
- Post class rules in prominent place
- Prepare a stimuli-reduced area that all students may use

- Seat at individual desks instead of tables

Educational/Behavioral Interventions and Strategies

- Assign student to structured but flexible teachers
- Hand schedule at the secondary level
- Seek a good fit between the student's learning style and the teacher's teaching style
- Schedule more demanding classes earlier in the day
- Alternate lessons or classes that require greater auditory attention with those that are more visual or active
- Use an interactive teaching approach: introduce information through auditory, visual, and tactile sensory modalities
- Use teaching techniques that involve active student participation as opposed to passive listening
- Shorten assignments (reduce rote writing)
- Accept a reasonable limit to the amount of time the student will spend each night on homework
- Break down lessons into several short segments
- Provide student with outlines
- Provide written instructions for lessons
- Ask student to repeat instructions before beginning assignments
- Show organization is important by modeling it
- Allow student 5 minutes at the end of each class to organize books, papers, etc., before beginning next class
- Give student extra set of books if he/she has difficulty getting them between home and school for homework
- Color code student's materials to help the student keep organized
- Use daily or weekly assignment sheets or notebook (with teacher verifying accuracy of assignments recorded)
- Use calendar to plan long-term assignments
- Notify parents immediately at the first sign of missing or incomplete assignments
- Give student weekly progress reports
- Allow oral and/or untimed tests

- Give more "wait time" - the amount of time you wait for an answer
- Permit breaks during tests
- When impulsivity on multiple choice tests means the student will not read all choices, have the student eliminate all incorrect responses, rather than choose one correct answer
- Allow student to take test in less distractible environments
- Permit student to type tests or use word processor
- Consider use of individual headphones to play soft music to block out other auditory distractions. Introduce headphones as a privilege or pair appropriate use with reinforcement.
- Use graph paper for math problems, handwriting, etc.
- Allow student to highlight main ideas in textbooks and jot notes in margins
- Encourage computer usage
- Allow the use of calculators
- See if the student benefits from cooperative learning groups or peer tutoring
- Assign a "study buddy"
- Be generous with the use of positive feedback and encouragement
- Give student frequent feedback
- Make necessary adjustments in a way that does not draw negative attention to the student
- Develop discreet cues between teacher and student to let him or her know when he or she is off task
- Provide social skills training
- Provide conflict resolution training
- Provide advance organizers such as maps, charts, outlines, etc. Use methods that cue students as to the structure of the lesson and expected learning outcomes
- Use checklists when necessary that outline directions, steps, or procedures to be followed
- Have a more organized student take notes on carbon paper or duplicate their notes
- Develop a reward system for work completion. Focus on "quality"

Accommodations and Strategies for Non-Academic Times of the School Day

For Bus Travel:

- Seat student near bus driver
- Assign a window seat, so the student can't easily touch, or be touched by, other students as they enter and exit the bus
- Allow the student to choose a friend to share the seat with him so that he views his special seating arrangement as a problem-solving technique instead of a punishment
- When student demonstrates appropriate bus behavior, be sure to reinforce it with praise

During Lunch Recess:

- Allow the student to eat lunch with a friend away from the cafeteria area, and preferably in a more quiet, less stimulating environment
- Allow the student to be one of a group of students working in the library
- Allow the student to become a janitor's assistant
- Allow the student to become an office aide or to do helpful errands for teachers
- Allow the student to play computer or board games with another student, or a small group of students, in a supervised environment

"Change of Class" Times:

- Allow the student extra time to organize books and papers from last class before beginning next class
- Allow the student to leave class early to go to his or her locker for supplies before hallways become such a flurry of activity and so distracting that he or she can't concentrate on getting the needed books and supplies for the next class

Empower students by teaching compensatory strategies

- Memory techniques such as "linking"
- Use of analogies, metaphors, outlines and/or mapping strategies. Encourage students to develop their own
- Students can be responsible for developing "study guides" or unit questions for other members of class (Use this as a cooperative learning activity)
- Teach problem-solving model and time-management strategies (see Appendix E)
- Help student identify and develop strengths and affinities

See Appendix B, C, D

HOME BASED STRATEGIES

Living with a child who has ADHD can be a very challenging experience. Parents need to monitor, intervene, and advocate for this child to a much greater extent than is required for other children. Simple everyday occurrences like getting dressed, brushing teeth, making a bed, picking up toys, eating meals, doing homework, etc., typically become major stumbling blocks for the child with ADHD. Activities that most families take for granted such as going to restaurants, stores, church services, or family or neighborhood gatherings can be overstimulating to the child with ADHD. Often family members find themselves dreading or avoiding altogether attending such functions. Siblings often resent the impact this child has on their entire family dynamics. The child with ADHD easily develops a negative self-concept. Marriages are stressed and family members begin to feel isolated, frustrated, confused, and overwhelmed.

Discovering strategies that help the child effectively manage ADHD behaviors is the key to reducing stress within the home.

For approximately 70-80 percent of children with ADHD, medication can play an effective and critical role in the success of their total treatment plan. Whether medication is to be used for a particular child or not is a decision that needs to be made by informed parents together with their child's physician. Parents need to understand what medications will do and what they won't do. They also need to understand that use of medication alone should never be considered sufficient. Additional interventions and strategies are necessary to assure the best possible outcome.

Since all children with ADHD are different, the management strategies for each will also be different. Consequently, it becomes extremely important that parents develop a thorough understanding of ADHD and the specific ways in which it impacts on their own son or daughter. Having this understanding is probably the single most important factor to achieving a positive outcome for the child because it provides the foundation on which all other management strategies will be based. Knowledge empowers parents to deal more effectively with the disorder. (see Appendix A)

It is of paramount importance that the child be informed about this disorder. This allows the child to better understand the basis for his or her difficulties and to become an active participant in developing the compensatory strategies he or she will need to succeed in learning and in life.

If all family members have a good understanding of ADHD, it will help them to feel more sympathetic and supportive toward the child suffering from the disorder and allows them to take a problem-solving approach when difficulties arise.

It is also important that parents impart an understanding of ADHD to extended family members and other significant people in the child's life. This would include teachers, coaches, babysitters, and anyone else who spends much time with the child. These people need to be supportive and sensitive to the child's individual needs. Their perceptions and attitudes toward the child with ADHD can significantly influence the child's self-esteem.

Additionally, parents need to be sensitive to their own need for a break from the stress of raising a child with ADHD. It is crucial to set aside time to "recharge their own batteries." They need to make time for friends, a hobby, or an interest. Many find that support groups are very informative and beneficial in reducing stress. For most parents it helps just to realize that they are not alone in their struggles.

Finally, parents should strive to keep things in perspective. Maintaining a good sense of humor and keeping a positive attitude is important. Parents should feel empowered knowing that they can greatly increase their child's chances for success. Children with ADHD who have knowledgeable and involved parents are most likely to have a positive outcome!

Home-Based Interventions and Strategies

- Structure the home environment
- Help your child develop good organizational skills
- Develop schedules and routines for your child to follow and post them in a prominent place
- Prepare your child ahead of time when there will be a change from the normal routine
- Have an area to which your child can go to for short "time outs" when he or she needs to regain control of himself or herself
- Write step-by-step instructions on 3x5 index cards for each chore you expect your child to do, then have him or her refer to card when it's time to do the chore
- Have reasonable expectations that take into account the ways your child's disorder affects him or her
- Model tasks for your child that he or she finds difficult -- repetition is often necessary to help internalize the behavior or task that is being taught
- Determine what rules are really important in your household, then make them very clear and concise and enforce them consistently
- Allow less important things to slide - pick your battles!
- State what you want your child to do, instead of what you don't want him or her to do
- Compile a list of rewards and consequences that are powerful motivators for your child - sit down with him or her and update the list frequently to keep it fresh and motivating
- Give praise and encouragement freely to motivate and reinforce good behaviors
- Recognize your child's effort even when he or she is not successful
- Show a lot of affection toward your child to reinforce that he or she is lovable
- Respect your child's uniqueness
- Try to anticipate and avoid situations that will "set off" your child
- Role play and brain-storm together with your child when problems do come up
- Ask for his or her perception regarding problem situations
- Help your child understand the part he or she plays in conflicts

- Use a problem-solving approach, discussing with him or her the advantages and disadvantages of each solution
- Provide your child with a daily assignment notebook to help him or her keep track of his or her homework assignments
- Provide a clutter-free study area for doing homework
- Strive for good communication and collaboration between home and school
- Set a limit for the amount of time your child can spend on homework each night and notify school personnel that assignments may need to be modified accordingly
- Divide homework time into manageable work periods
- Involve your child in extracurricular activities he or she enjoys and at which he or she can be successful
- Provide opportunities that promote successful social interaction with other children (short, one-on-one, supervised play situations seem to be most successful)
- Recognize strengths and encourage opportunities to build them
- Keep emotional climate calm --- Avoid "statements of judgment"; use "I/reactions" rather than "you/judgments"
- Do not measure success by comparing him or her to peers, but make him or her responsible for improvement

MEDICAL INTERVENTIONS FOR ATTENTION DEFICIT HYPERACTIVITY DISORDER

Just as school personnel are able to determine students who have autism, learning disabilities, emotional impairments, or mental retardation as eligible for IDEA programs and services without a medical evaluation in most cases, school personnel can often determine whether or not a student is eligible for services under Section 504 without a prerequisite medical diagnosis. The key to eligibility under Section 504 is the determination by a group of persons knowledgeable about the student and the assessment data that the student has a psychical or mental impairment that substantially limits the major life activities of learning. In this regard, students who are inattentive for a reason other than ADHD may be eligible for services under Section 504.

A good way to conceptualize how the different professionals involved in this diagnosis relate to one another and relate to ADHD as medical, psychological, or educational diagnosis is to consider the example of depression. An individual may seek an evaluation for feelings of depression from a family physician, a psychiatrist, a psychologist, a social worker or counselor. The nature of the symptoms may range from an expected adjustment reaction to loss of someone or something important in the person's life to constant and unremitting feelings of worthlessness and suicidal thoughts. Whatever professional first encounters the patient will need to make a judgment about whether or not a physician should be involved either to exclude other organic problems or to use medical intervention such as pharmacotherapy. A psychologist can diagnose and treat depression through counseling. A physician can diagnose and treat depression with medication if indicated.

ADHD is similar in that the behavioral and physiological manifestations cross professional domains. Likewise the treatment occurs as a multimodal effort. For some students the family counseling may be the most important part of treatment. For others, medication may not be effective and the counseling around personal, family and classroom structure will be paramount. At this time, very few professionals in the field advocate the use of medication as the sole intervention, although it has been argued that this would be a more cost effective approach to the problem. Current trends in research at this time are to examine the utility and effectiveness of multimodal treatment.

Medical interventions for ADHD are based on the concept of this disorder as an organic problem with behavioral manifestations. The assumption is that there is something different about the physiology of attention in people with this diagnosis.

There is a great deal of support for this concept. Studies of the functioning of different parts of the brain carried out by advanced scanning techniques, studies of neuropsychology that involve the performance of specific mental tasks that can be traced to certain areas of the brain, and animal studies that have examined the influence of neurotransmitters, or the "chemical messengers" that operate between nerve endings, have demonstrated an organic or physiologic difference in persons with ADHD and in animals with ADHD-like behaviors.(Hynd, et.al.,1991; Jensen & Mattes, 1980; Posner & Peterson, 1990; Voeller, 1990; Zametkin, 1987 & 1989)

There is also evidence that comes from other medical conditions in which problems with learning, impulsivity, poor attention and distractibility are found. These include post concussive syndrome, long-term outcome of some types of meningitis, lead poisoning, Reyes Syndrome, and a variety of genetic problems such as Prader Willi Syndrome and Fragile X Syndrome as well as toxic insults to the developing fetus, such as Fetal Alcohol Syndrome.

The medical intervention available at this time is treatment with medication. All of the medical care involved in ADHD centers on two issues: (1) assessment for a medical diagnosis, which includes the doctor's responsibility to rule out any of the other medical or physical problems that could be causing problematic behaviors, and (2) determining the effectiveness of medication and monitoring the safe use of medication.

The various medical specialities that are involved in diagnosing and treating children with ADHD include pediatrics, child psychiatry, child neurology, psychiatry, and family practice. The family may seek advice from their primary care physician about which physician to contact. They may be referred to more than one if the problems are complicated.

The physician will individually determine to what extent he or she will participate in the other critical aspects of making this diagnosis and monitoring progress, such as assessing school problems and family dynamics. Some physicians may undertake these assessments as part of the extended history and examination. They may use assessment tools that have been developed specifically for the pediatrician. Other physicians may have a team of professionals in which each member of the team performs the assessment in his or her area of expertise. Another option for the physician is to identify community professionals to whom he or she refers the patient for each piece of the evaluation process. The situation will be very much influenced by the physician's training and philosophical bent as well as by availability of other professionals to assist in the process. Sometimes geographic location and the patient's ability to pay determine access to services.

Medical Treatment of ADHD

When a diagnosis of ADHD has been established, medication is often part of the treatment plan. There are several reasons why medication may NOT be indicated. There may be contraindications to treatment with stimulants, such as the presence of a tic disorder. The stimulant may not be effective and contraindications may exist to treatment with second line drugs, such as liver disease or heart disease. The student's age and family's ability to tolerate the behaviors may warrant delay of pharmacotherapy. The family may be strongly opposed to the use of medication. In this situation, information is presented to the family; however, the decision is made by the family. A parental decision to withhold medication from the student cannot be circumvented. In any of these circumstances, maintaining a therapeutic alliance with the family allows frequent reassessment of the student's problems over time. It is sometimes the case that supporting the parents through the difficult circumstances of inability to medicate or a decision not to medicate the child serves to enhance other modes of treatment and allows time for the family to build trust in the diagnosis and the treatment options.

The importance of a supportive professional for the family of a student having ADHD cannot be overemphasized. At some point in time, every family will experience distress related to this diagnosis. If an adversarial relationship develops between any of the members of the treatment system, the family may lose access to treatment opinions for a prolonged period of time. If a teacher, school support staff, physician, or mental health counselor has left an open door, there will be opportunities for the family's understanding of the nature of their problems to evolve. It is possible in this context that the outcome will be a high degree of commitment from the family to address the needs of the student and family at large.

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Methylphenidate (Ritalin)

The medications most often used for ADHD are listed in Appendix P. Methylphenidate (Ritalin) continues to be the drug of choice because it has the fewest side effects and is short acting. This enables a treatment plan to be developed that will target problematic times of day and difficult situations for the student. It is often not possible to keep the student medicated over all waking hours. Therefore, an informed decision will be made by the physician and the family together about how to use the medicine.

Examples of how methylphenidate (MPH) might be used are: before school and at lunch to cover the school day, Monday through Friday for a student who does not have problems at home, little homework on the weekends, or parents who feel strongly that they wish to use as little medication as possible. Another student may have a third dose before leaving school to cover a long and difficult bus ride home. Yet another student may take a third dose at 4:30 p.m. on Tuesday and Thursday because the teacher has grouped all his/her homework for those days. The decision to use the medication seven days a week, over summers and holidays, or during times of school instruction is made individually for each student. As long as the student continues to gain weight and does not have other side effects, there is no contraindication to using the medication throughout the week and year.

The dose of methylphenidate will vary greatly from student to student. It is no longer widely held that a smaller dose is effective for learning but not for behavior control, and that the dose required for behavior control may actually impede learning. (Tannock, et.al.,1989) The effective dose is that at which an improvement in specific learning tasks, attention, and sometimes behavior is seen without side effects.

There is a sustained release preparation of methylphenidate that comes in a single dose of 20 mg. The advantage to using this medication is that it only has to be taken once in the morning and the student doesn't need to take a dose in school. The disadvantage is that there is evidence that not only is the medication absorbed differently from person to person, but also differently day to day in the same person. It is reasonable to try the sustained release once the appropriate dose has been established using the standard drug because families and student tend to be very satisfied with this medication when it is effective. However, if reports are that the dose is ineffective and it seems there is a need to increase, the first step is generally to return to a split dose with the standard MPH to determine if the problem is with the dose or the preparation.

The same is true in regard to the generic MPH. The bioavailability profiles published by the Federal Drug Administration indicated which generic brands are similar to Ritalin, the "name" brand. However, there is literature to suggest that for some people, the bioavailability of Ritalin may be better or more consistent than that of the generic. Before a decision is made that an unusually high dose is needed or that the medication is ineffective, Ritalin should be given a trial if the generic has been in previous use.

Side effects that would require discontinuation of MPH are a depressed effect in the child, loss of spontaneity, and emotional lability. The student may indeed concentrate better but the trade off of an unhappy child is not acceptable. Other side effects that would warrant stopping this medicine are inability to gain weight after careful dietary interventions, occurrence of tics, or an adverse reaction that manifests as agitation, dysphoria, obsessive compulsive behaviors that are disabling to the child, or psychotic behaviors. These are quite rare. Occasionally a child may become overly focused and unable to disengage from activities. This may be a more significant finding in

students who are educable or trainable mentally impaired. It has been demonstrated that while these students may appear to be focusing intensely on a task, very little learning may occur as the student is actually engrossed in irrelevant detail.

Alternative Medications

As other medications are considered, the possibility of graver side effects must be weighed against the advantages of medicating the student. If the circumstances are not extreme, the family and physician may decide that the more prudent step to take is to increase the intensity of educational interventions. If however, the symptoms of ADHD are interfering with the student's ability to function, the second line drugs that may be used are dextroamphetamine (Dexedrine), desipramine (Norpramin), and pemoline (Cylert). There is not a consensus about which drug should be the next choice. The decision should be based on the nature of the problem encountered with MPH, the child's other health problems, and the major concerns of home and school. In any case, the second line drugs require frequent laboratory studies to closely monitor for side effects.

Expectations of Treatment

The expectation of pharmacotherapy for ADHD is that there will be: (1) an increased ability to concentrate for an appropriate length of time when compared to peers; (2) an increased ability to pay attention for a brief encounter and to sustain attention, such as is required for good listening skills; (3) an increased ability to tolerate the normal distractions of the classroom such as other students moving about or talking; and (4) a decrease in impulsive behavior such as blurting out comments or grabbing things and people.

The hope is that the above changes may result in: (1) an increased opportunity for learning, (2) an improvement in academic progress, (3) an improvement in self-esteem, (4) an improvement in peer relationships, and (5) an improvement in relationships with adults as well. It is often the case that the successful use of medication results in the interruption of a vicious cycle of negative interactions with others that dominates the child's experience of school and home life.

It is important, however, that the student's family, teacher, therapist, and physician understand that many factors influence a student's learning, self-esteem, and social relationships. The medication may enable a student to concentrate and complete work but may not necessarily result in better grades. The reasons for this may include the coexistence of a learning disability or previous failure to learn the basic material which then makes it hard for a student to succeed at grade level.

The medication may decrease a student's impulsive behavior so that other students are not always offended by this student. But that alone may not be enough to make up for the previous attitudes that students and adults may have developed toward this student. (Pelham & Bender,1982)

Monitoring the Use of Medication

Teachers may be asked to help with diagnosis by completing questionnaires about the student's behaviors and abilities in the classroom. The same type of questionnaire can be the basis for long-term evaluation of the effectiveness of the medication and fine tuning the dose. Efforts have been made to create checklists that will not place excessive demands on the classroom teacher.

An effective strategy may be to identify a task done regularly that requires attention and freedom from distraction. Weekly spelling tests, daily handwriting assignments, math problems, or fill-in-the-blank desk work may be useful to monitor over time. These may help the family, school and/or physician observe a change related to changes in the medication.

The qualitative reports that a teacher provides, however, can never be replaced by a checklist. These are invaluable to the physician who must place the student's behavior in an appropriate context. Often the teacher can communicate a concern about self-esteem, creativity, defiance, unique abilities, or adverse social circumstances that cannot be obtained from any other source. These qualitative statements are often most helpful when the diagnosis is obscured by many problems that the family faces in economic, social, cultural, and health domains.

Providing information understandably creates the expectation that feedback will result. However, if the family initiates a medical evaluation and does not want the school to have any information about what transpires at the evaluation or follow-up visits, the physician must comply with the family's wish for confidentiality. The only exception would be if the parents raised assessment/eligibility as an issue in a due process hearing challenging school district assessment/eligibility determinations. This may seem quite unfair to the teacher who has invested a great deal of time in completing questionnaires and working with the student when the outcome seems to be no improvement in the student or no movement on the part of the family toward treatment. These circumstances can be very unsatisfying to everyone involved with the student. A mental health professional from outside the school system, or perhaps from the intermediate school district as opposed to the student's own school personnel, may need to be involved to help bring the family and school into a more trusting relationship.

Co-morbid Disorders

There are a variety of disorders that occur frequently in students who have a diagnosis of ADHD. When two disorders exist in the same person they are referred to as "co-morbid."

A learning disability is one of these. It is often difficult to sort out whether a child does not attend because he/she is unable to do so, or because they do not comprehend the material presented. This is usually accomplished by psychometric testing. Whether to test a child before or after he/she is medicated generally depends on the level of confidence in the diagnoses of ADHD. If that diagnosis is well established, the student will have his or her best opportunity to perform on the testing if medicated. Approximately 20-30 percent of students with ADHD may also have a learning disability. The percentage is greater if less stringent criteria are used to define a learning disability. (Barkley, 1990)

A disorder of speech and language may be present. This may overlap with a learning disability for language skills. This distinction, however, is important in developing an appropriate educational plan for the student. An audiology screen will be an important component of this assessment and a referral for a specific evaluation of hearing, speech, and language may be necessary. Ten to fifty-four percent of students with ADHD will have a speech and language problem as well. (Berkeley, 1990)

There are psychological diagnoses that are significant in students with ADHD. Forty-four percent of students with ADHD can be expected to have a coexisting psychiatric disorder. These include oppositional defiant disorder, conduct disorder, and separation anxiety. It can be a difficult task to separate the behaviors of anxiety from those of ADHD; however, they can coexist. It is sometimes obvious that defiant behavior has been a hallmark feature since the student's toddler years. However,the question may arise as to whether defiant or conduct disordered behavior evolved in response to ADHD, for example as a response to constant negative feedback from intolerant adults and a sense of school failure accumulated year after year.

There are medical conditions described earlier that are characterized by ADHD-like symptoms. It is not clear whether these students can be expected to respond to stimulant medication in the same way or as often as students who have only a diagnosis of ADHD.

There are also major social circumstances that can be extremely difficult to deal with, even if correctly identified. Children may have traumatic histories of multiple tragic losses at a young age, physical trauma or abuse, prolonged deprivation of nutrition and nurturance that result in behavioral manifestations. There will be children who have an unfortunate combination of inadequate social support, medical conditions, and the co-morbid disorders described above. These students are best evaluated by a team of professionals, if possible, who have not only the assessment capability but also the ability to help families connect with community resources. The issues of poverty, racism, and lack of access to medical care will continue to impact strongly on the ability of organized medical, mental health, and educational agencies to identify and assist students and families with ADHD.

Prognosis

Fifty to 65 percent of students with ADHD will have persistence of core symptoms into adulthood. The majority of these people, however, have compensated for their attention deficits and made a satisfactory adjustment to life. (Berkeley, 1990) There are an increasing number of young adults and parents of diagnosed students who identify similar problems for themselves now seeking treatment for ADHD. Approximately one out of four children with ADHD, as far as we are aware, grows up and experiences significant problems in adulthood.(Goldstein, 1993)

Controversies in the Diagnosis and Treatment

There are researchers and consumers who support an approach to treatment of ADHD that involves manipulation of diet, usually to eliminate sugar and additives, the use of vitamins, various biofeedback techniques and optometric vision training. There is no evidence that these interventions work for most people. However, there may be a small number of individuals who are sensitive to particular food additives, sugar or a particular vitamin. As long as a growing person's diet continues to meet the needs of the body for both maintenance and growth, these dietary interventions are usually not harmful. The use of large doses of vitamin supplements, however, must be carefully monitored to avoid toxic, cumulative doses in children and young adults. Biofeedback techniques that involve focused attention or meditation are useful exercises for some people who benefit from learning how to concentrate. This may be a frustrating experience for some and results may not generalize to other situations, such as the classroom. But again, it is usually not a harmful practice and can help some students learn a greater sense of control over attention and impulsivity.

There is a growing concern that too many students will be labeled with a diagnosis of ADHD and too many students will be medicated for behavioral problems. There is also a concern that the true incidence of ADHD will not be acknowledged and there will be an under diagnosis of students who could benefit from intervention. There is a particular concern in Michigan because this state has the highest per capita use of Ritalin in the nation. However, a recent investigation by the Controlled Substance Advisory Commission revealed no misuse of Ritalin in Michigan. This has led some to suggest that the higher use may be related to increased awareness regarding ADHD amongst parents and professionals in Michigan, resulting in a higher incidence of diagnosis and treatment of the disorder.

A family needs to feel that its concerns have been directly addressed and incorporated into the assessment process. A sense that concerns are dismissed or not seriously evaluated undermines all

interventions on behalf of the students.

ADHD is truly a diagnosis that lends itself to the model of patient participation both for the parents and student. That participation should extend to the educational setting as well. A commitment and sense of responsibility should be present on all levels and the overall goal of enhancing the student's quality of life should not be superceded by struggles among providers.

The work with children and families with ADHD can be difficult, frustrating, and exhausting. This is often how the parents feel! But the rewards of staying with the student, of not giving up on the family or the "system" can be immensely gratifying.

A young student once presented the complaint, "There is something wrong with my ears. I can't listen." When he reported back that his ears were fixed, there was a tremendous satisfaction on the part of all those who had completed checklists, made endless phone calls, and tried every trick in the book. Eventually it came together for this student and that is an achievement of effective collaboration and commitment from the important adults in this student's life.

TRANSITION

Life After High School
Preparation and Options for Students with ADHD

"Rising levels of education, increased ethnic diversity, a growing population of elderly individuals, more single person households, and other diversity trends are moving American society away from mass society towards a mosaic society." [1]

Students with ADHD will enter this mosaic society; one where the majority will be people of diversity. These trends are creating an environment where abilities versus differences will be the key to opportunity in the work force of the future. Options linked with abilities will be further enhanced by strong civil rights protections which impact employment, social, recreational, and independent living options for persons with disabilities.[2] Clearly, qualified persons with disabilities will have unparalleled opportunities for advanced education and employment.

Preparing students with ADHD for these future life options presents a critical educational challenge. "The central purpose of our educational system must be to provide ALL students--from preschool through higher education--education, skills, and training needed to enable them to make a seamless transition from high school to further education or the world of work."[3] Thus, it is essential that the educational community understand employer needs and demands. Employers describe their work force needs as workers with specific skills who can problem-solve, make good decisions, communicate effectively with others, work with a team, and serve customers. For students with ADHD who have difficulties with organizing, planning, concentration, reasoning, and responsive decision-making, skills which match employers' requirements must be formally developed and be a central part of their educational program.

Currently, students with ADHD are "at risk" for:

- Chronic school failure/frustrations
- Dropping out of high school
- Unemployment or under employment
- Criminal activity which may lead to incarceration
- Social isolation
- Extended periods of living with their parents as young adults
- Low self-esteem

These factors are not life goals formally established by the student, family, school, and/or community. Rather, they are the circumstances that result when planning does not occur. Transition is an intervention strategy. It is a shared long-range planning process designed to help the student move successfully into adult life. The transition process begins with a shared vision of

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[1] United Way of America Strategic Institute, What Lies Ahead, Countdown to the 21st Century.

[2] P.A. 220 Michigan Handicappers Civil Rights Act prohibits discrimination in the areas of employment, public accommodations, education, and housing. Americans with Disabilities Act (ADA) prohibits discrimination in the areas of employment, public services, transportation, public accommodations, and telecommunications. Section 504 of the Rehabilitation Act prohibits discrimination from the participation in, being denied the benefits of, or being subjected to discrimination under any program or activity receiving federal financial assistance.

[3] Redefining the purpose of education--Preliminary Recommendations to speaker Lewis N. Dodak from the Speaker's Blue Ribbon Commission on Career/Technical Education, February, 1992.

the student's life after high school. The vision then becomes the focus of the student's secondary program and entry into post secondary education and/or employment.

The importance of long-range planning and collaboration is further underscored in the Individuals with Disabilities Act (IDEA) which adds transition services as a requirement in the IEP process. Transition services are mandated at age 16, and earlier if appropriate, for all students identified as eligible for special education under IDEA. The proposed IDEA (P.L. 101-476) regulations (Section 300.18) state:

> "Transition Services" means a coordinated set of activities for a student, designed within an outcome-oriented process, which promotes movement from school to post-school activities, including post-secondary education, vocational training, integrated employment (including supported employment), continuing and adult education, adult services, independent living or community participation. The coordinated set of activities must: (a) be based upon the individual student's needs; (b) take into account student's preferences and interests; and (c) must include instruction, community experiences, the development of employment and other post-school adult living objectives, and if appropriate, the acquisition of daily living skills and functional vocational evaluation."

Effective transition practices, whether mandated by law or adopted as educational best practice for students with ADHD, include three major focuses:

1. Individualized secondary education program focused on desired student outcomes;

2. Linkages with appropriate adult service providers, including post-secondary education; and

3. An evaluation component allowing for timely change or redirection of a student's education program and community linkage.

The basic notion underlying transition is that career preparation, education, and job placement for students with disabilities is a joint effort between educators, parents, students with disabilities, businesses, and adult service providers. Members of the transition team may vary at different times; however, the students and family remain key participants throughout the process.

The following is a list of transition issues and suggested approaches to these issues which are commonly found in related research and exemplary transition programs:

Issue

A formalized planning process facilitates effective transition.

Suggested Approaches

- District wide transition plan and process
- Parent involvement
- Interdisciplinary school support team
- Written individual transition plans

- Assignment of a transition coordinator to oversee implementation of individual transition plans.

Issue

Provision of vocational education and paid work prior to high school graduation facilitates development of an adult career track.

Suggested Approaches

- Formal and informal vocational assessment occurring over time which allows the student to develop a portfolio with information concerning the student's interests, strengths, and weaknesses, including work-related behaviors, general skills, and specific skills.
- Vocational training which allows for awareness, integration, skill development, and skill application and competencies based on employer standards.
- Paid work concurrent with in-school experiences.

Issue

Parent involvement facilitates successful transition from school-to-adult life.

Suggested Approaches

- Use parents to gather information for vocational assessment portfolios and to reinforce training.
- Include parents' responsibilities as part of the transition plan. For example, the parent may provide transportation for the student to get to his or her job.

Issue

Interagency collaboration and cooperation facilitates successful school-to-adult life transition.

Suggested Approaches

- Establish community teams to serve as "change agents" who can identify and address systemic barriers to transition.
- Involve diverse community representatives, including Michigan Rehabilitation Services.
- Develop an understanding of each other's purposes, eligibility criteria, and performance measures through cross-agency inservice training.
- Articulate and implement written agreements to clarify service delivery responsibilities.
- Share expertise and inservices, including knowledge of specific disabilities and possible accommodations and compensatory strategies.

Issue

Business/education partnerships facilitate effective transition.

Suggested Approaches

- Involve local business representatives in activities such as vocational education advisory committees, and mentors for individual students.

Issue

Accountability is necessary to ensure the effectiveness of the transition process.

Suggested Approaches

- Involve students and parents in the evaluation/feedback process
- Collect data and use it to improve programs

Students with ADHD should leave the public school system with the following knowledge and skills:

1. Self-awareness. Students need to understand their unique abilities, interests, and limitations. Such awareness is developed through real life experiences. Such real life experiences may include:

   - Involvement in academic course work,
   - Involvement in paid employment,
   - Involvement in extra-curricular social activities,
   - Involvement in the development of a student portfolio derived from vocational assessment, and
   - Opportunities for vocational education.

2. Disability awareness. Students with ADHD need to understand the unique characteristics related to their disability, including functional limitations. Further, students need to have an understanding of effective accommodations which may be helpful in post secondary education and/or employment settings and be able to effectively advocate for such accommodations.

3. Exposure to a wide-range of community supports and resources. Knowledge and contacts are empowerment and without such, real choices are not available.

Transition planning is the key to promise for life after school.

COLLABORATION AND COMMUNICATION

The characteristic behaviors of ADHD and the problems experienced by these families and young people cross professional domains. Assessments and interventions require input from the student, the family members, the teachers, any counselors involved, school diagnostic personnel, and often a physician. This recommendation is made repeatedly across disciplines.

However, collaboration between professionals and institutions is not easy to achieve. The following requirements are essential to effective communication and collaboration.

The first requirement to effective collaboration is that the individual parties involved recognize the need and the importance of collaboration in helping the young person achieve the ultimate goal of a better quality of life. If the physician thinks that the teacher's comments are irrelevant, there will not be collaboration. If the parent feels it is necessary to exclude the teacher from the information loop, there will not be real collaboration. And if the teacher feels it is not worth the effort to respond to yet another request for questionnaires, there will be no multidisciplinary evaluation. This concept can be expanded to include the administrative arms of these professions as well. If the school administrators do not support the classroom teacher in these evaluation and intervention efforts, they will be extremely difficult to sustain.

The second requirement for effective collaboration is time. No one will ever have enough time to wait on hold for the doctor's nurse. The doctor may not be able to call the school at 7:45 a.m. or 3:15 p.m. The parent may feel there has not been time to contact the teacher before the visit with the doctor. Efficient yet informative reporting devices may make this process easier. Clear understanding among the partners in care about the responsibility of each party facilitates effective transfer of information. This role may best be played by the parent who assumes responsibility for determining from the doctor what information is required and then seeking that information from the teacher. It would then be the parents' responsibility to provide feedback to both parties. This may not always be possible as some parents may not have the personal resources to carry out such a role. However, over time it is possible to work with a family to help them develop that sense of self-determination and competency.

The third requirement for effective collaboration is an understanding and acceptance of the constraints of confidentiality. It must be clear at all times to all involved that the decision to use medication for a child is a decision made solely by the parents with information provided by school personnel and physician. It must also be clear that information discussed in a doctor's or therapist's office about family matters that may well impact on a child's ability to pay attention in school will remain confidential if the parents so wish. This often seems unfair as teachers are asked to invest a great deal of time in completing an evaluation of a child but are not then given any feedback about a diagnosis or treatment plan. Again, asking the parent to be the means of communication between the school and physician assures that parent that they will have control of this information and a greater degree of cooperative sharing may result.

The fourth requirement for effective collaboration is that the professionals involved know what is reasonable to expect from one another. A physician writing a prescription for the school to conduct psychological testing is not collaboration. However, filling out a form as in Appendix U with a brief statement as to what is needed and why, is more likely to be met with a positive response. A teacher telling a parent that a child cannot come back to school until he or she is medicated indicates that the teacher has great frustration, but inappropriate expectations of everyone involved. Developing reasonable role expectations may be the most difficult obstacle to overcome not only because so many different professions are involved with these families, but because within

professions, providers take a variety of roles. Some pediatricians do not wish to diagnose or treat ADHD. Some therapist will see the family only, refusing to work with the child should the parents refuse to participate. Some teachers will provide extensive support to the student with ADHD out of personal commitment while others may refuse to acknowledge the problem. As more public attention is drawn to this condition, the behavior of professionals will be shaped in response to the demands of the families and this will likely result in a more consistent delivery of a better quality of service.

The following list of expectations is designed to help professionals working with families and students with ADHD become more comfortable in their roles:

School Superintendent

- Support district-wide staff inservice education
- Support district-wide efforts for classroom interventions by all professional staff
- Support district-wide efforts to identify and serve students with impairments
- Assure that a clear medication dispensing policy is in place
- Recommend that universities strive to educate student teachers, student school psychologists, and student social workers about ADHD

District Special Education Director

- Facilitate the identification of impairments under IDEA
- Employ Section 504, when appropriate
- Support the inservicing of all staff regarding identification and intervention
- Maintain awareness of current prevalence rates for students with ADHD needing special education and those using medication
- Determine the number and percent of students with ADHD in special education in the district
- Determine the number and percent of students with ADHD using medication in the district

School Psychologist

- Assist with classroom interventions and behavior modifications
- As appropriate, assist in eligibility determinations of students with identified or suspected ADHD under IDEA and/or Section 504.
- Learn how to diagnose ADHD accurately so as to assist teachers, parents, and physicians
- Write diagnostic letters or psychology reports and provide information, when appropriate, to physicians
- Provide counseling to the child and/or parent

- Assist with the monitoring of medications, when appropriate
- Consult with and provide information to parents and teachers
- Serve as case coordinator, when appropriate

School Social Worker

- Assist with classroom interventions and behavior modification
- When appropriate, assist in eligibility determination of a student with identified or suspected ADHD under IDEA and/or Section 504
- Learn ADHD diagnostic criteria so as to assist teachers, parents, and physicians
- Write diagnostic reports and provide information , when appropriate, to physicians
- Reference Section 504, when appropriate
- Assist with the monitoring of medications, when appropriate
- Consult with and educate parents and teachers
- Provide social work counseling to the child and parent
- Provide social skills training
- Serve as case coordinator, when appropriate

Teachers

- Know the characteristics of ADHD
- Implement behavior management techniques and classroom interventions
- Serve as case coordinator, when appropriate
- Upon signed parent release and request, provide information to a physician, including medication monitoring forms
- Assist with classroom assignment completion

School Counselor

- Know the characteristics of the disorder
- Counsel the student and parents
- Distribute and collect medication follow-up forms, when appropriate
- Serve as case coordinator, when appropriate

Consultant/Coordinator

- Assist with classroom intervention and behavior management.
- As appropriate, assist in eligibility determination of students with identified or suspected A.D.H.D. under IDEA and/or Section 504.
- Collaboratively share information related to diagnosis identifying A.D.H.D. to assist parents, teachers and physicians.
- Assist with the monitoring of medications, when appropriate.
- Provide consultation to parents and teachers.
- Provide social skills training, as appropriate.
- Provide training for classroom teachers regarding the characteristics of A.D.H.D. and methods of classroom intervention.
- Assist with home interventions, when necessary.
- Serve as case coordinator, when appropriate.

Principal

- Support building wide training for staff
- Arrange for the proper dispensing and logging of medication
- Support teachers who have classroom needs for students with ADHD
- Assist with guidance and discipline
- Assist with classroom interventions

Parents

- Educate themselves regarding the disorder
- Assist their child with school assignment completion
- Obtain information from the school about the student's behavior and academic performance
- Inform the physician of their child's progress in school and at home
- Administer medications at the proper time and at the proper dose

Physician

- Consult with and educate the child and family
- Conduct an assessment for a medical diagnosis which includes the physician's responsibility to rule out any of the other medical or physical problems that could be causing problematic behaviors
- Determine the effectiveness of medication and monitor the safe use of medication

Clinic Psychologist or Clinic Social Worker

- Assist with home interventions
- Educate the parents and child
- Provide individual, group, or family counseling
- Provide social skills training

SUMMARY

ADHD is a serious condition that affects from 3 to 8 percent of the school population. (Barkley, 1990) Defining the characteristics of this disorder is complex because a multitude of manifestations exist. Many other physical and psychological conditions share some of the same characteristics as ADHD and indeed, physically and otherwise health impaired, learning disabled, emotionally impaired, and ADHD are not mutually exclusive. To effectively diagnose a student as ADHD will require appropriate multidisciplinary assessments that recognize the value of input from multiple sources. Parents and classroom teachers will play a significant role in diagnosing and implementing strategies for the student with ADHD; therefore, it is vitally important that they receive extensive training in ADHD symptomatology and methodology.

The great diversity of student needs within the ADHD population make it crucial that a team approach be taken. Parents, the medical community, and the school community all need to work together to develop comprehensive, individualized action plans. These action plans must focus upon the unique talents and needs of the student with ADHD and include the development of appropriate intervention strategies. Failure to develop and implement appropriate interventions places students with ADHD at-risk for major academic and social failure. Interventions for students with ADHD often include medication; however, medication alone is NEVER sufficient to deal with the problems of this disorder. If medication is warranted, then it follows that classroom accommodations are also warranted. Accommodations may be as simple as placing the student at the front of the classroom or making arrangments to allow a noon dose of medication to be obtained. Some accommodations may be elaborate. A comprehensive intervention p ogram must include teaching of social skills and coping skills that will carry the student with ADHD through life.

Families of students with ADHD are typically under considerable stress. School personnel can help by providing parents with resources and organizations that can provide them with information about ADHD. The challenge of dealing with students with ADHD belongs to all of us. Working together, we can assure appropriate educational programs for these students.

REFERENCES

American Psychiatric Association (1980). *Diagnostic and Statistical Manual of Mental Disorders.* (3rd Ed.). Washington, D.C.

American Psychiatric Association (1987). *Diagnostic and Statistical Manual of Mental Disorders.* (3rd. Ed., Rev.). Washington, D.C.

Abikoff, H., Gittelman-Klein, R., & Klein, D. (1977). *Validation of a Classroom Observation Code for Hyperactive Children.* Journal of Consulting and Clinical Psychology, pp 772-783.

Achenbach, T.M., & Edelbrock, C.S. (1983). *Manual for the Child Behavior Checklist and Revised Child Behavior Profile.* Burlington, Vermont

Barkley, Russell A. (1990). *Attention Deficit Hyperactivity Disorder, A Handbook for Diagnosis and Treatment.* Guilford Press, New York.

Bradley, W. (1937). *The Behavior of Children Receiving Benzedrine.* American Journal of Psychiatry, Vol. 94: pp 577-585.

Brown, R.T., & Quay, L.C. (1977). *Reflection-Impulsivity of Normal and Behavior-Disordered Children.* Journal of Abnormal Child Psychology, Vol. 5: pp. 457-462.

Dulcan, M. K. (1990). *Using Psychostimulants to Treat Behavioral Disorders of Children and Adolescents.* Journal of Child and Adolescent Psychopharmacology, Vol. 1: pp 7-20.

DuPaul, G.J., & Barkley, R.A. (1990). *Home Situations Questionnaire-Revised.* University of Massachusetts Medical Center, Worchester, MA.

DuPaul, G.J., & Barkley, R.A. (1990). *School Situations Questionnaire-Revised.* University of Massachusetts Medical Center, Worchester, MA.

DuPaul, G.J., Barkley, R.A. (1991). *ADHD Rating Scale.* University of Massachusetts Medical Center, Worchester, MA.

DuPaul, G.J., Rapport, M.D., & Perriello, L.M. (1991). *Teacher Ratings of Academic Skills: The Development of the Academic Performance Rating Scale.* School Psychology Review, pp 284-300.

Gordon, M. (1979). *The Assessment of Impulsivity and Mediating Behaviors in Hyperactive and Non-Hyperactive Children.* Journal of Abnormal Child Psychology, Vol. 7: pp 317-326.

Goyette, C.H., Conners, C.K., & Ulrich, R.F. (1978). *Normative Data on Revised Conners Parent and Teacher Rating Scales.* Journal of Abnormal Child Psychology, Vol. 6: pp 221-236.

Gresham, F.M., & Elliott, S.N. (1990). *Social Skills Rating System.* American Guidance Service. Circle Pines, MN.

Hale, G.A., & Lewis, M. (1979). *Attention and Cognitive Development.* Plenum, New York.

Hops, H., & Greenwood, C.R. (1988). *Behavioral Assessment of Childhood Disorders*. pp. 263-316. Guilford Press, New York.

Hynd, G.W., et al. (1991). *Corpus Callosum Morphology in Attention Deficit Hyperactivity Disorder: Morphomertric Analysis of MRI*. Journal of Learning Disabilities, Vol. 24: pp. 141-146.

Jacob, R.G., O'Leary, K.D., & Rosenblad, C. (1978). *Formal and Informal Classroom Settings: Effects on Hperactivity*. Journal of Abnormal Child Psychology, Vol. 6: pp. 47-59.

Jacobvitz, D., et al. (1990). *Treatment of Attentional and Hyperactivity Problems in Children With Sympathomimetic Drugs: A Comprehensive Review*. Journal of American Academy of Child and Adolescent Psychiatry, Vol. 29: pp. 677-688.

Jensen, J.B., & Garfinkel, B.D. (1988). *Neuroendocrine Aspects of Attention Deficit Hyperactivity Disorder*. Endocrinology Metabolic Clinics of North America. Vol. 17: pp. 111-127.

Kendall, P.C., & Wilcox, L.E. (1979). *Self-Control in Children: Development of a Rating Scale*. Journal of Consulting and Clinical Psychology, Vol. 47: pp. 1020-1029.

Kertesz, A., et al. (1985). *Motor Impersistence: A Right Hemisphere Syndrome*. Neurology; Vol. 35: pp. 662-666.

Loge, D.V., et al (1990). *Performance of Children With ADHD on Tests Sensitive to Frontal Lobe Dysfunction*. Journal of American Academy of Child and Adolescent Psychiatry. Vol. 29: pp. 540-545.

Lou, H.C., et al. (1989). *Striatal Dysfunction in Attention Deficit and Hyperkinetic Disorder*. Archives of Neurology. Vol. 46: pp. 48-52.

Mattes, J.A. (1980). *The Role of Frontal Lobe Dysfunction in Childhood Hyperkinesis*. Comprehensive Psychiatry. Vol. 21: pp. 358-369.

Pelham, W., & Bender, M.E. (1982). *Peer Relationships in Hyperactive Children: Description and Treatment*. Advances in Learning and Behavioral Disabilities. JAI Press Inc., Greenwhich, CT. Vol. I: pp. 365-436.

Posner, M.I. & Peterson, S.E. (1990) *The Attention System of the Human Brain*. Annual Review of Neuroscience. Vol. 15: pp. 25-42.

Rapport, M.D., Tucker, S.B., DuPaul, G.J., Merlo, M., & Stoner, G. (1986). *Hyperactivity and Frustration: The Influence of Control Over the Size of Rewards in Delaying Gratification*. Journal of Abnormal Child Psychology, Vol. 14: pp. 191-204.

Still, G. F. (1902). *Some Abnormal Physical Conditions in Children*. Lancet. Vol. i: pp. 1008-1012, 1077-1082, 1163-1168.

Strauss, A.A., & Lehtinen, L. E. (1947). *Psychopathology and Education of the Brain Injured Child*. New York: Grune & Stratton.

Tannock, R., et al (1989). *Dose-Response Effects of Methlphenidate on Academic Performance*

and Overt Behavior in Hyperactive Children. Pediatrics, Vol. 84: pp. 648-657.

Ullmann, R.K., Sleator, E.K., & Sprague, R.L. (1991). *ADD-H Comprehensive Teachers Rating Scale (ACTERS).* Champaign, IL.: MeriTech, Inc.

Voeller, K.K.S. (1990). *The Neurological Basis of Attention Deficit Hyperactivity Disorder.* Internal Pediatrics, Vol. 5: pp. 171-176.

Walker, H.M., & McConnell, S.R. (1988). *Walker-McConnell Scale of Social Competence and School Adjustment.* Austin, TX: Pro-Ed, Inc.

Zametkin, A.J. & Rapoport, J.L. (1987). *Neurobiology of Attention Deficit Disorder With Hyperactivity: Where Have We Come in 50 Years?* Journal of American Academy of Child and Adolescent Psychiatry. Vol. 26: pp 676-686.

Zametkin, A.J. (1990). *Cerebral Glucose Metabolism in Adults With Hyperactivity of Childhood Onset.* New England Journal of Medicine. Vol. 323: pp 1361-1366.

APPENDIX A

TIPS ON BEING YOUR CHILD'S ADVOCATE

I. Prepare for your role as your child's primary advocate.

A. Have a thorough understanding of your child's disorder and how it impacts him or her. Become aware of particular situations, times of day, school activities and subjects that are difficult for your child.

Communicate frequently with your child's teacher. Don't let a crisis be the impetus for your contact with the school. Ask questions and offer support.

B. Have a thorough understanding of the laws and the protection they afford your child educationally. (see Appendix M)

C. Seek evaluations from professionals. Use community resources such as hospitals, pediatricians, psychologists, family physicians, child psychiatrists, community mental health agencies, or other family service agencies to determine their level of interest and expertise in evaluating and treating ADHD.

D. If your child has been evaluated privately or by the school personnel, be certain you understand evaluation results and recommendations.

E. Become involved with local parent support groups. Attend workshops on ADHD and advocacy.

II. Be organized.

A. Keep records:

1. Keep a dated file of your child's work (with and without medication when applicable).

2. Save copies of all correspondence with the school (i.e., progress reports, notes, report cards).

3. If you have a conversation concerning a problem or service to be provided, always confirm this in writing.

4. Keep a log or journal to help establish patterns.

B. Prepare for transitions:

1. Involve yourself each year in securing the optimum school placement for your child; good matches between your child's learning style and the teacher's style. The best teachers are those with knowledge of ADHD, flexibility, creativity, and emotional stamina.

2. When your child enters a new school, walk him or her through the building, rehearse schedules, discuss busing changes, help review locker combinations, etc.

3. Early in the year meet with the teacher(s) and provide information. (see Appendix C)

III. Be persistent.

A. Think of advocacy as a "process" that must be engaged in throughout your child's educational experience.

B. Be prepared to continually work cooperatively with the school, offer information, and help others to see the total child -- his or her abilities, creativity, and talents.

C. Ask for changes if alternatives are tried and do not work.

IV. Maintain a positive and cooperative attitude. Have realistic expectations of school personnel. Use a problem-solving approach. Strive for a home-school partnership to promote better outcomes for the ADHD student.

APPENDIX B

TEACHERS' NEEDS WITH REGARD TO STUDENTS WITH ATTENTION DEFICIT

Teachers have the following needs for support with regard to students with ADHD:

1. The need to be trained in the nature of the handicapping condition, strategies and interventions, medication effects and side-effects, classroom management, and other pertinent information.
2. The need to participate in educational planning.
3. The need for a speedy and appropriate evaluation on students referred for A.D.D./A.D.H.D. evaluations.
4. The need to receive assistance and support from school administration.
5. The need to support-staff assistance including at least one individual designated and trained in each building to act as a resource person.
6. The need to adequate resources to meet the needs of these students.
7. The need to have adequate time for planning, coordination and collaboration.
8. The need for collaborative exchange of information.
9. Some consideration given to class size reduction when students with severe A.D.D./A.D.H.D. are assigned to a class.
10. The need for clear, district-level written policy or guidelines.
11. The need for flexible curriculum which allows for the needs of all students.
12. The need to have adequate parent information available such as books, videos, handouts, and/or parent workshops.

APPENDIX C

STRATEGIES AND TECHNIQUES TO ENHANCE SECONDARY CLASSROOM INSTRUCTION FOR STUDENTS WITH ATTENTION DEFICIT/HYPERACTIVITY DISORDER

English Literature

1. Try listening to taped or recorded stories while following in the text.

2. Use a small group of class members to be the readers (by parts of sections to the rest of the class), Reader's Theater technique.

3. Pair readers for reading assignments -- put a good or average reader with a poor reader. Use cooperative learning groups to enhance student's strengths.

4. Have the teacher or an excellent reader read orally to the class and let students follow along in the text.

5. Use comic books, student or simplified (versions) synopses, films, and filmstrips with classics to encourage attention to the task.

6. For severe reading problems or blind youngsters, obtain the Talking Books for the Blind.

7. If parents are cooperative, try to enlist a family member to read to their youngsters with a reading problem.

8. Utilize tutors outside of class -- volunteers from school, community, senior citizens, etc.

9. Review lessons frequently to build the sequence for students having some difficulty following the story line.

Written Language

The highest form of language competence is expressive writing. It is a complex progress requiring the integration of memory, sequencing, organization, vocabulary, grammar, handwriting, spelling, ideation, and conceptualization. Skills in this area must be taught with careful planning, deliberate step-by-step instruction and evaluation and feedback.

1. Encourage students to report experiences, share feelings, describe pictures and participate in interviews and dramatic presentations.

2. Provide a variety of experiences to talk about words and develop an understanding of connotative as well as denotative meanings. Additional activities include: organizing, classifying, reordering a set of sentences to tell a story in a logical order and reporting events of a story in sequence.

3. Assist the transition from oral to written language. Experiences are reported to the teacher, who writes them in the students' own words. Once the story is written down, it is read out loud to the student. Students begin to understand the written language process.

4. Help the students use a "process cycle" of prewriting, drafting, editing and sharing.

5. Consider separating the content from the mechanics. The two could be evaluated separately.

6. Consider requiring and evaluating, but not grading the rough draft. Teachers can make positive comments, note errors and make suggestions for further improvement. This encourages students to continue to strive to do their best.

7. Provide instruction in outlining. Although this is a prewriting skill, many students are unable to outline prior to writing. Outlining helps students complete a thinking process that facilitates organization.

8. Give students a partial, small assignment and then encourage them to increase their abilities.

Math

Many of the math problems with these youngsters stem from fear or awe of too much or lack of organization in how to attack the material. To help:

1. Assign fewer problems. If pressured from other students, assign all students varying amounts of work (alternate problems, 1-15, another group 15-30, etc., random numbered problems, etc.)

2. Have students fold paper into lines, quarters or halves, and just work what they see until that is complete.

3. Use a tutor who prepares a sheet with wider spacing and fewer problems per page.

4. Student works problem out, writes it down, then uses calculator to check work. If student didn't get it right, ask for help on problem. Emphasis is on process because he/she knows calculator will give correct answer -- also motivating.

5. A student often can tell us what kind of day she or he is having if we'll just ask. When giving an assignment or sheet of problems, have the student write at the top before she or he starts, how many can be done correctly. Then let the student work them, correct them, and see if she or he met the goal. Proceed gradually to greater numbers.

6. For story problems, have the student read the problem and underline key words and phrases. Then proceed with what type of problem it is, etc. or have someone read it to the student with attention difficulties.

7. If problems are mixed up (addition, subtraction, etc. on one page), point this out by underlining, circling, or using yellow marker, etc., on the sign to forewarn pupils. Then fade clues gradually.

8. Set up a system (checklist, if you will) of how to attack a math problem, e.g., first decide if addition, subtraction, then put up a chart to which students can refer.

Reading/Study Skills

1. Always introduce new words, go over their dictionary meanings and meanings of how the word is related to what they will be reading.

2. Review words occasionally; do not expect to show them once and they will have it.

3. Determine the reading level of your text. If it is too high for some of your students, assign portions of assignments, reading pairs, or something which is within their reading level. Never expect a student to read and comprehend something very much above his reading level.

4. Guide student's reading with meaningful questions.

5. Teach the SQ3R method as study technique.

   S - scan or survey the section to be read.

   Q - turn all bold face type into questions, then ask that question.

   R - read that passage, continue this until the end of the section or chapter answering the question at the end of that section.

   R - review what you have read, use the questions at the end of the passage and review the chapter by:

   R - reciting them out loud and reciting the answers.

(If there are no questions at the end, make up your own from the bold type and recite the answers to those for your review.)

6. Another idea is to take a sheet of paper and before reading or studying, write down everything on your mind and place that at the end of what you need to study, then study. It clears your mind for studying/reading.

7. Use problem readers as tutors to younger children. Often problems in reading lie in lack of practicing reading skills rather than anything more serious.

Reports

To allow for some individual differences:

1. Let some students do oral reports--this can be done face-to-face, such as, one person to others in small group with each student rating the speaker to a checklist (need to use caution that the checklist is fully understood).

2. Let groups discuss topics and select a reporter to feed back to the large group.

3. Let a student tape an oral report (may or may not require a brief written outline).

4. Submit written reports; allow for variations such as illustrations with the report or a series of illustrations with captions which can be substituted for a written report.

5. Write or prepare a report for a younger group of children and go to their class at prearranged time to give it. Keep reading level low and remove the threat of reporting to one's peers.

Science

1. Use of lab work with a mixture of students who have varying abilities.

2. Making science a living thing rather than emphasis on textbook material. Take science out of the classroom.

3. See suggestions under other categories also.

Social Science
See literature for some suggestions.

1. Obtain a variety of books covering the various topics that are being studied and individualize poorer readers' assignments to something within their reading ability.

2. Extend the study of social science topics into a reader; e.g., if you are studying geography instead of the wall map, build a topographical relief map in the classroom (use more talented students to read and help translate to students having difficulty).

3. Utilize films and filmstrips about areas in an unusual way; e.g., instead of showing a filmstrip and cassette as traditionally used, select certain frames of the tape for common study and discuss them. Using a filmstrip on climate, look at the roofs of the different types of buildings, or plant life, or soil and try to guess about the climate and the type of people living there, etc.

4. Extend the social sciences into the communities--relate history to older people in the area who have community history to tell; in studying World Wars or Korean and Vietnamese Wars, bring in community members who can relate the war (both at home and abroad).

5. Make social sciences as realistic as possible; if studying the old West, obtain a collection of antiques or artifacts to bring in, or art work, home crafts, etc., and use as a point of discussion rather than always using written material. Try to emphasize how people lived, their ways of having fun, the type of work they did, etc., through discussion, outside speakers, interviews with grandparents and other elderly people.

Tests/Evaluations

1. Avoid T-F tests. They emphasize reading and trick reading at that.

2. If possible, change the emphasis in your teaching on learning rather than testing. If a student can do work in class but freezes on tests, find more informal ways to get an accurate assessment of the students' knowledge.

3. Test what is important and teach what is important. Trivia is not the real meaning of education and especially not for students with learning problems.

4. Try not to test too much material at one time. This tends to "overload the circuits." So, shorter, more frequent tests are better than infrequent, lengthy exams.

5. Teach and test what your objectives say you will teach and test. A straight forward, no curves approach will be much easier for the students with learning problems to cope with.

6. Curb any appetite for pop quizzes as a punishment to make students study. Rather, if you want quizzes, use them with warning and as a means of diagnosing how your students are learning and how you are teaching.

7. If you have presented something new or something difficult, get students' reactions of whether they understood by asking a few simple questions. Have students respond to a few basic questions on the "feeling wheel."

8. Use a pictorial test for a change.

9. Have the student interview with you if you do not know what she or he knows. Grading and evaluation should be open, not a surprise. Try to test according to individual abilities.

10. Give tests orally if students need that type of assistance. This can be done with a teacher, a volunteer, or any other available adult. You can use student assistants, but select carefully and do not use a peer. Consider the delicate position of the student assistant in the testing matter.

11. Tape a test and have a student use a headset in the classroom or just the tape recorder in another room. Responses can either be written or given orally with enough time allowed on tape.

General

1. When working on outlining, instead of 2 or 3 pages of a chapter, have the student outline only the 2 or 3 paragraphs which are most difficult for him or her.

2. Spelling techniques differ widely from writing the word misspelled a lot of times to writing it spelled correctly a lot of times. In spelling, generally the student is lacking in good memory skills. The extra practice is necessary, but shorten the list of words. Then have students really concentrate on that shorter list. Let them practice both oral and written spelling to see which way they can learn best.

3. Correct grammar is a real tough situation if the students are accustomed to learning poor grammar. A couple of things which are a caution: Do not try to work on too many changes at one time. Maybe seen-saw, gone-went are big problems. Work on just that much for a week. Do not keep it a secret that you are working on it. Let other students, teachers, and parents know. Work on it with the whole class -- not just one student.

4. Use grammar in games for additional practice.

5. Use spelling and grammar rules. Concentrate on a single grammar rule until it is understood. Allow for lots of practice on each rule. Skimming over rules offers more confusion than foundation.

6. Try making contracts with students who are having problems for the work to be done for your class. A contract implies input from both parties. A fair contract does not mean that the teacher demands something, and the student delivers for some type of reward. (Be willing to hear the student's side of the issue also.)

Alternatives for the Adolescent with Special Needs

1. Students with memory problems could benefit by revisualizing or reauditorizing a task before starting it.

2. The less note taking and reliance on memory, the more likely the student with minimal disabilities is to succeed. Therefore, you could:

   A. Prepare written instructions for homework, including page numbers, required questions, date due, etc.

   B. Distribute exam study sheets including the date of the exam.

   C. Tape your lectures and make them available in the library for students who want to listen to them again.

   D. Mimeograph outlines of your lectures for students to follow and fill in while you are talking.

3. Reduce the amount of written work required of students with language or motor problems. To justify this, consider that less quantity for this student represents as much work as more quantity for a student without disabilities. Instead of written work, substitute:

   A. Oral reports

   B. Conferences with the instructor

   C. Taped report

   D. Slide and tape show

   E. Photographic essay

   F. Etc., be creative!

4. When looking at written work, try to differentiate between poor spelling, poor handwriting, and poor content.

5. If you are interested in the student's spelling errors on written work, list them on the back of the paper, or on a separate sheet of paper. The student's paper is much less rejecting and the student will be more likely to turn in the next assignment.

6. To correct spelling errors, have student practice words by spelling them aloud. Sometimes it is helpful if the student familiarizes himself or herself with the shape of the word by outlining it.

7. Avoid presenting too much material, too fast. The student may just give up.

8. Instead of giving a series of directions, try breaking them into short parts.

9. You can help a student focus his or her attention by saying things like, "This is new...This will be needed for..."

10. You can help a student to structure himself/herself by telling him or her what will be covered in class today.

11. Students with ADHD will also need help in structuring assignments for themselves. Initially, limit the number of choices (freedom) until the student learns to handle it.

12. The multiplication tables can be a useful reference which will enable students with memory problems to progress to more complex math operations.

13. Using graph paper for math helps to keep the figures in the correct columns.

14. To help correct spacing and letter size problems, try using graph paper for written work, too.

15. Other aids in handwriting are: building up the size of the pencil or pen with a rubber band and using a fine tip felt pen to increase letter size.

16. Creative writing could include "writing" on a tape recorder. This would bypass some of the skill areas where the student might be weak (spelling, handwriting, punctuation, etc.) to concentrate on content and organization.

17. Idioms may be a problem because the student often attempts to interpret them literally.

18. New vocabulary can be a stumbling block. It would be useful to introduce the vocabulary before the reading assignment. A running list of unfamiliar vocabulary could be kept on a piece of butcher paper.

19. Whenever possible, students should see an enactment (play, TV program, or movie) to reinforce the material about which they are reading.

20. Tutoring younger students and teaching their peers is a terrific ego boost and a good way to motivate the student to learn the material. (Many high schools run tutoring programs for elementary school children.)

21. Many students cannot tolerate unstructured situations, noise, pressure, competition, deadlines--meaning there may be problems with tests, field trips, "free" days, etc.

22. Group discussion can be an area where a student with ADHD really succeeds or it can be a very threatening situation. To alleviate the threat, a large group can break down into pairs to discuss an issue. Then one member of the pair can summarize the discussion for a larger sub-group or the total classroom.

23. A study skills center in the classroom or for the whole school can be very useful. Perhaps this could be staffed by library or reading personnel. Important skills would be note taking and summarization. Students might be released from class time to go to the skills center. This would release the teacher to work with average and above average students.

APPENDIX D

CHECKLIST OF CLASSROOM INTERVENTIONS UTILIZED

Child's Name _____ Date _____

Your Name _____ Daytime Phone # _____

School _____ Grade _____

Child's Primary Problems: _____

_____

_____

Please check any of the interventions listed below which you have attempted for this child. Your comments concerning the result of each intervention would also be helpful.

	Interventions	**Result**
___	Contracting	_____
___	Parent Conference	_____
___	Home Note	_____
___	Monitor with Timing Device	_____
___	Increased Supervision	_____
___	Counseling	_____
___	Response Cost Reinforcement	_____
___	Peer Involvement	_____
___	Tutoring	_____
___	Direct Instruction	_____
___	Use of Special Equipment (i.e., tape recorder)	_____
___	Inschool Suspension	_____
___	Change in Classroom Environment (i.e., seating arrangement)	_____
___	Change in Curriculum	_____
___	Schedule Change	_____
___	Teach and Practice Expected Behavior with Student	_____
___	Other, specify _____	_____

Submitted by: Sam Goldstein, Ph.D., Neurology Learning and Behavior Center

APPENDIX E

STUDENT PROFILE SHEET FOR TEACHERS

Student's Name: _____ **Birth Date:** _____

School: _____ **Phone:** _____

Teacher: _____ **Grade/Level:** _____

1. This student likes and enjoys:

2. This child's strengths are:

3. This student needs special help with:

4. What instructional practices have helped this student succeed?

5. This student needs the following environmental interventions:

6. This student works best with adults/teachers with these attributes:

7. Further suggestions:

8. Other notes:

APPENDIX F

STUDENT PROFILE SHEET FOR PARENTS

Child's Name: _____ **Birth Date:** _____

School: _____ **Phone:** _____

Teacher: _____ **Grade/Level:** _____

1. My child likes and enjoys:

2. My child has these strengths:

3. My child needs help with:

4. Possible alternatives and/or additions to my child's educational program:

5. My child needs the following environmental interventions:

6. My child works best with adults/teachers with these attributes:

7. Questions I have about my child:

8. Other notes:

APPENDIX G

Bloomquist and Braswell 5 Step Problem-Solving Process

1. **STOP! WHAT IS THE PROBLEM?**

   This step requires the child slow down and recognize the cues that signal the presence of a problem. Children usually need help understanding the cues that come from other people and from their own thoughts, feelings, and bodily sensations.

2. **WHAT ARE SOME PLANS?**

   This step requires the child to generate more than one alternative solution. Children often need help understanding how to brainstorm possible solutions.

3. **WHAT IS THE BEST PLAN?**

   This step requires considering the possible emotional or behavioral consequences of each alternative. It is important to help the children consider not only the emotional consequences for others but also how they will feel about themselves if they select a particular alternative.

4. **DO THE PLAN.**

   This step involves acting upon the selected alternative. Sometimes selecting a particular choice requires anticipating or planning around obstacles to successful use of the plan.

5. **DID THE PLAN WORK?**

   This step emphasizes the importance of reviewing the effectiveness of the selected alternative. If the first choice did not work well, then the child selects another choice or follow a back-up plan.

APPENDIX H

Common Problematic Attributions and Beliefs/Expectations Regarding ADHD Children

ATTRIBUTIONS

- Child-Blame Attributions
  This child is a brat
  This child does it intentionally
  This child is the cause of all the classroom problems

- Self-Blame Attributions
  It's my fault that this child is that way
  If I wasn't such a poor teacher, this child would be better off

BELIEFS/EXPECTATIONS

- About the Child

  This child's future is bleak. When he or she grows up, he or she will probably be irresponsible, a criminal, etc.

  I have no control over this child. There is nothing I can do to control this child's behavior. I have tried everything, etc.

  This child should behave like the other children. I shouldn't have to teach this child how to behave. I shouldn't have to treat this child any differently than any other child.

  This child must do well in school. It is unacceptable if this child does not do as well at school as any other child.

  This child is "defective." This child has many problems. This child does not fit in with the other children, etc.

- About Self and/or Classroom

  I can't make mistakes as far as teaching this child.

  I give up. There is nothing I can do for this child.

- About Medications

  He or she needs medication. He or she is uncontrollable without medication.

  This child must be on medications. This child cannot be tolerated in school if he or she is not on medication.

Medications are "the answer." This child's problems will be greatly diminished or gone when he or she is on medication.

Medication should never be given to this child for this difficulty.

- About Therapy/School Interventions

Therapy/school interventions will "fix" or "cure" this child.

Therapy/school interventions will provide the answers.

Braswell and Bloomquist, Cognitive Behavioral Modification for ADHD Children, Gullford Press, 1991

APPENDIX I

Adaptive Attributions and Beliefs/Expectations Regarding ADHD Children

ATTRIBUTIONS

- Child-Blame Attributions: Counters

  Many problems are out of this child's control.

  It doesn't matter whose fault it is. What matters are solutions to the problems.

  It's not just this child. I also play a role in the problem.

- Self-Blame Attributions: Counters

  It's not just my fault; this child plays a role too.

  It doesn't matter whose fault it is. What matters are solutions to the problems.

BELIEFS/EXPECTATIONS

- About the Child: Counters

  I'm being irrational. I have no proof that this child will continue to have problems. I need to wait until the future.

  My belief that I have no control over this child might contribute to the problem. Many things are in my control. This belief gives me an excuse not to control this child.

  I can't expect this child to behave like kids without ADHD. This child needs to be taught how to behave more appropriately.

  I need to accept this child for whoever he or she is. It's OK if this child is not great at school.

  I need to focus on this child's strengths and not on his or her "weakness" or "failure."

- About Self and/or Classroom: Counters

  I'm going to make mistakes. It's natural to make mistakes. This child is more challenging than others.

  I have to teach this child now or later. I have no choice not to teach this child now. I need to think of new ways to teach this child.

- About Medications: Counters

  Medications may be one component of this child's intervention, but not the "answer."

  Medications with therapy and other interventions work best.

  I have to help this child so that he or she does not attribute his or her improvements only to the medications, rather than to other factors in his or her control.

  Medications might be helpful for this child. A careful trial of medication could answer this question.

- About Therapy: Counters

  No one can "fix" or "cure" this child, but we can learn how to adapt to the problems.

  The therapist (or school psychologist, social worker, counselor, etc.) can only guide us to learn how to cope with the child's problems.

Adapted from Braswell and Bloomquist (In press) with permission.

APPENDIX J

SELF-ADVOCACY PACKETS: Information for advocating on behalf of students with disabilities in issues related to education.

- Problems with school transportation
- Requesting an initial IEPC meeting
- School proposes change to student's program
- Filing a special education complaint
- Parent proposes change to the student's program
- Requesting an independent education evaluation
- Eligibility for special education: Mental Impairments Categories
- Eligibility for special education: Attention Deficit Disorder - ADD
- Homebound and Hospitalized Services
- Behavior modification programs
- Suspension and expulsion
- IEPC Process: Advocacy Hints
- IEPC Process: Guide to preparation and participation
- Advocating in the IEPC process: Keys to effective advocacy

Please return this completed order form to:

Michigan Protection and Advocacy Service
109 W. Michigan Ave., Suite 900
Lansing, Michigan 48933-1709

APPENDIX K

STUDENT PROFILE SHEET FOR PARENTS

Child's Name: _____ Birthdate: _____

School: _____ Phone: _____

Teacher: _____ Grade/Level: _____

1. What my child is interested in:

2. Things my child is ready to learn:

3. My child is best at:

4. My child needs the most help with:

5. Help my child has gotten in the past:

6. Problems with my child's current program:

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7. Possible alternatives and/or additions to my child's current program:

8. Services that my child needs:

9. Special concerns that I have about my child:

10. Questions I want to ask about my child:

11. Suggestions I have about working with my child:

12. Other notes:

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APPENDIX L

ORGANIZING YOUR THOUGHTS

It's never too late to start keeping records. "A notebook can help organize thoughts, keep everything in one place, and serve as a reminder of what has been done for the child."

These questions may help you organize your thoughts:

1. Do I have any records from by child's doctor that will give additional information?
2. Have I listed any home observations?
3. Have I recorded observations, past and present, from school?
4. Are test scores, past and present, recorded?
5. What questions have I forgotten to ask at previous meetings or discussions?
6. Is there any material, upon review, that I still don't understand?*
7. What skills do I believe are necessary for my child to learn at this time?
8. Do I see problem behaviors at home that could be helped by work at school?
9. What behaviors do I feel my child needs most to improve on?
10. What do I believe to be my child's strengths and weaknesses?
11. What have been the most effective methods of rewarding and punishing my child?
12. To what extent does my child interact with other children in the neighborhood?
13. How do I feel about programs that provide opportunities for my child to attend classes or activities with nonhandicapped youngsters?
14. What have I been doing at home to improve specific skills?
15. How much time can I reasonably spare to work with my child at home?
16. How often do I want to be informed about progress?
17. How do I prefer to get information from the school (note, telephone call, conference, home visit, etc.)?

*Quotation and questions 1-6 are taken from: Winslow, L., Parent Participation. In S. Torres (Ed.), A Primer on Individualized Education Programs for Handicapped Children. Reston, Va: The Foundation for Exceptional Children, 1977. Pp. 44, 46.

APPENDIX M

SUGGESTIONS FOR MODIFICATIONS IN CLASSROOMS (SMIC) ATTENTION DEFICIT DISORDERED YOUTH WITH AND WITHOUT HYPERACTIVITY

FOR EXCESSIVE ACTIVITY

Generally channel activity into structured forms:

- give activity reward (errand, clean board, organize teacher's desk, arrange chairs) as individual reward for improvement
- allow standing during seat work, especially during end of task
- encourage diary writing, painting, etc.
- encourage sports activities of any type
- allow directed movement in classroom that is not disruptive (e.g., sharpen pencils, give two seats so child can change placement)
- encourage verbal participation in small groups and large group discussion
- use teaching activities that encourage active responding (talking, moving, organizing, working at the board)
- encourage note taking (even just cue words)
- allow alternative ways to get attention from peers or teacher (e.g., line leader, paper passer, peer tutor, story teller)

FOR INABILITY TO WAIT

Generally give the child substitute verbal or motor responses to make while waiting:

- instruct child on how to continue on easier parts of tasks (or do substitute task) while waiting for teacher's help
- teach how to cross out incorrect answers on multiple choice tests
- make child underline or rewrite directions before beginning
- cue child about upcoming difficult times or tasks where extra control will be needed
- allow child-pacing of activities, rather than teacher pacing
- for children who interrupt others, teach them to recognize pauses in conversations

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- encourage doodling or play with clay, paper-clips, pipe cleaners while waiting or listening to instructions
- instruct and reinforce social routines (hellos, goodbyes, please, thank you)
- point out cause and effect of behavior
- encourage note taking (even just cue words)
- allow child-pacing of activities, rather than teacher pacing
- give magic markers or colored pencils for child to underline directions or relevant information

FOR FAILURE TO SUSTAIN ATTENTION TO ROUTINE TASKS AND ACTIVITIES

Either decrease the length of the task or increase novelty into later time periods:

- give enrichment activities for children on topics of their interest
- teachers travel (walk) around the classroom at frequent intervals
- use fewer words in explaining tasks (concise and global verbal directions)
- give fewer homework assignments
- give shorter homework assignments
- give two tasks with a preferred activity to be completed after the less preferred task (the "desert principle")
- give fewer spelling words
- give fewer math problems
- allow reduced time on one assignment (e.g., two shorter assignments given for child to complete in same time as other children are completing one)
- allow work with partners (buddies)
- allow work in small groups
- allow work in centers
- allow a limited choice of tasks, topics, activities
- alternate low and high interest tasks, so that child can look forward to high interest tasks
- use overhead projector when lecturing

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- teach child to ask questions that are on-topic
- allow child to sit closer to the teacher
- make a game out of checking work (e.g., trade papers with another child)
- use games to over-learn rote material, and to maintain attention
- see suggestions under Noncompliance and Failure to Complete Tasks

FOR DIFFICULTY AT THE BEGINNING FOR TASKS

Generally increase the structure and salience of the relevant parts of tasks and social settings:

Modify tests:

- read tests or tape tests
- color, circle, or underline test directions
- teach how to cross-out incorrect answers on multiple choice tests
- make child underline or rewrite directions before beginning

Prompt child for verbal directions:

- call child's name, touch child, use a private signal word, move closer to child
- use prompt cards (written directions) in addition to verbal ones
- cue child about upcoming difficult times or tasks where extra control will be needed
- encourage note taking (even just cue words)

Structure written assignments:

- have the child use graph paper for math
- state standards of acceptable work. Be as specific as possible about expectations
- point out overall structure of tasks (topic sentences, headings, tables of content)
- allow work with partners (buddies) and quiet talking
- allow work in small groups
- give magic markers or colored pencils for child to underline directions or relevant information (check this)

Color, circle or underline:

- difficult letters in spelling
- math process signs
- directions or parts of directions

FOR NONCOMPLIANCE AND FAILURE TO COMPLETE TASKS

Generally increase the choice of tasks, or make sure tasks fit within the child's interests, learning abilities (including ability to sustain attention), and preferred response style:

- give verbal compliments for improved work
- give verbal compliments for improved behavior--catch the child being good
- avoid paying attention to unwanted behavior (e.g., "sit down!" "pay attention!"); many of these children will increase negative behavior to get teacher attention
- give tallies on board or on child's paper for good behavior or for tasks completed
- give tallies for good conduct or work completion (and take them away for incomplete)
- give tallies to trade for whole class or group activity-reward
- use time out from preferred activity in class
- state your goals for improved social behavior directly to the child
- use activity rewards (errands, clean board, organize teacher's desk, arrange chairs) as individual rewards for improvement
- praise any efforts in waiting turns
- give child opportunity to demonstrate to others his/her skill area
- allow alternate response modes (typewriter, computer, taped assignments)
- use alternate suggestions under Failure to Sustain Attention (fewer, shorter assignments, etc.)
- give advanced level reading or math assignments (altered assignments) or give lower level difficulty of reading or math assignments (altered assignments)

FOR DISRUPTION AND NOISE

- give class and individuals three possible strikes at which time the whole class will have to do something less pleasant (for example, take an in-class test instead of a take home)--give back strikes for hits (particularly kind behavior or good answers)
- do **not** take away recess or gym time

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- use whole class rewards (picnics, trips, free time for low noise levels)

FOR DISORGANIZATION

Generally increase the use of lists, object-placement routines, and spatial/color organizers:

Complete Assignments and Planning of Activities on Time

- write assignments for child in a pocket notebook or have a buddy do this until child can
- write assignments on the board, use colors to code different areas, make sure child has a copy
- practice planning different activities (what is needed, how to break tasks into parts)
- order from The Franklin Day Planner Catalog (1-800-447-1492) the Student Success Module Kit and Student Success Forms ($15)
- practice estimating the time it will take to complete specific tasks
- practice estimating time it has taken for a past task

RETRIEVE ROUTINELY USED OBJECTS OF CLOTHES, BOOKS, ASSIGNMENTS, ETC.

- encourage routine of pocket folders with new work on one side and complete graded work and class notes organized chronologically on the other. (check this)
- encourage parents to establish places for certain things at home (books, homework)
- organize desk or locker with labels and places for certain items
- before leaving one place for another (walking out of a door), teach routine of child self-questioning--"Do I have everything I need?"
- tape prompt cards in desks, on books, or on assignment folders

To Order Ideas and Thoughts

- teach the use of word processor to reorder ideas
- teach outlining skills
- teach the child to take notes on lectures or on written materials in 3 columns (main points, supporting points, questions)

FOR POOR HANDWRITING

Generally reduce need for handwriting and reduce standards on some assignments:

- color, circle or underline parts of letters as models that children typically fail to close in cursive writing (kity fog pads)
- allow reduced standards for acceptable handwriting
- do not have child recopy material, it will get progressively worse instead of better
- allow student to copy a peer's notes or the teachers's notes
- accept typed or taped assignments
- display particularly good samples of the child's work

FOR BOSSY BEHAVIOR

Generally give leadership roles and teach the qualities of good leadership:

- encourage activities in boy scouts, or girl scouts
- teach how to negotiate and teach the rules of negotiation
- teach how to ask questions of others
- explain consequences of bossiness and how it differs from suggesting things to others

FOR LOW SELF-ESTEEM

Generally recognize the child's strengths and efforts and increase child's feelings of success by increasing child's skills:

- call attention to areas of child's strengths
- recognize that excessive activity can also mean increased energy and productivity
- recognize that bossiness can also be leadership potential
- recognize that impulsiveness can also to lead to spontaneity and humor
- mark student's correct performance, not the mistakes
- recognize that attraction to novel stimulation can also lead to creativity

APPENDIX N

National Information Centers for ADHD

The following is the contact information for the five national ADHD centers:

Assessment and Identification Centers - set up to collect information on promising assessment and identification practices.

Dr. James McKinney
University of Miami
P.O. Box 248065
Coral Gables, FL 33124
(305) 284-5388

Dr. Roscoe Dykman
Department of Pediatrics
Arkansas Children's Hospital Research Center
1120 Marshall Street
Little Rock, AR 72202
(501) 320-3333

Intervention Centers - set up to collect information of promising intervention practices.

Dr. James Swanson
University of California-Irvine
19262 Jamboree Blvd.
Irvine, CA 92715
(714) 856-8730

Dr. Tom Fiore
Research Triangle Institute
3040 Cornwallis Road
P.O. Box 12194
Research Triangle Park, NC
(919) 541-6004

Successful Practices and Programs - this will be the clearing house for the information received by the four centers above and will be responsible for disseminating the information nationwide.

Dr. Larry Carlson
Federal Resource Center
University of Kentucky
314 Mineral Industries Bldg.
Lexington, KY 40506
(606) 257-1337

APPENDIX O

RESOURCES FOR THE EDUCATIONAL ADVOCATE

Advocating: A parents view of Individual Programming; Illinois Developmental Disabilities Advocacy Authority, videotape (1/2-inch and 3/4-inch), available for loan from Michigan Protection and Advocacy Service, Inc., 109 W. Michigan Avenue, Suite 900, Lansing, MI 48933, 1-800-292-5923

C.h.A.D.D., National Office, 499 N.W. 70th Ave., Suite 308, Plantation, FL 33317, (305) 587-3700

C.h.A.D.D. of Wayne and Oakland Counties, P.O. Box 9037, Livonia, MI 48151; (313) 464-8233

Children's Defense Friend, 1520 New Hampshire Avenue, N.W., Washington, D.C. 20036, (202) 822-7900

Citizens Alliance to Uphold Special Education (CAUSE), 313 S. Washington Square, Lansing, MI 48933, (517) 485-4084 or 1-800-221-9105

Council for Exceptional Children, Division of Learning Disabilities, 1920 Association Drive, Reston, VA 20901, (703) 620-3660

How to Organize an Effective Parent/Advocacy Group and Move Bureaucracies; Coordinating Council for Handicapped Children, 20 E. Jackson Blvd., Room 900, Chicago, IL 60604; $5.00 plus $1.00 for postage and handling

Information for Parents of Special Education Students in Michigan, Michigan Department of Education, Special Education Services, P.O. Box 30008, Lansing, MI 48909; (517) 373-0923

Know Your Rights; pamphlet, Tourette Syndrome Association, Inc., 41-02 Bell Boulevard, Bayside, NY 11361

Michigan Assocation for Emotionally Disturbed Children, 24133 Northwestern Highway, #103, Southfield, MI 48075; (313) 356-2566

Michigan Assocation of Learning Disabilities Educators, 2100 Pontiac Lake Road, Waterford, MI 48328-2735; (313) 858-1903

Negotiating the Special Education Maze by Winifred Anderson, Stephen Cliftwood, and Deidra Hyden, 1990. Woodbine House Publishers, Rockville, MD, 1-800-843-7323

The P&A Role in Education for Students with Developmental Disabilities; Michigan Protection and Advocacy Service, Inc., 109 W. Michigan Avenue, Suite 900, Lansing, MI 48933, 1-800-292-5923

Parents are to be Seen and Heard, Assertiveness in Educational Planning for Handicapped Children; Geraldine Ponte Markel and Judith Greenbaum, Impact Publishers, P.O. Box 1094, San Luis Obisbo, CA 93406

Public Law 94-142 and Section 504: Numbers that Add Up to Educational Rights for Handicapped Children - A Guide for Parents and Advocates; Children's Defense Fund, Attn: Public Department, 122 "C" Street, N.W., Washington, D.C. 20001, (202) 628-8787; $6.85

The Rights of Individuals with Handicaps Under Federal Law; U.S. Department of Education, Office of Civil Rights, Washington, D.C. 20202-1328

Special Education: An Advocate's Manual; Michigan Protection and Advocacy Service, 109 W. Michigan Avenue, Suite 900, Lansing, MI 48933, 1-800-292-5923

Student Placement in Elementary and Secondary School and Section 504 and The Civil Rights of Students with Hidden Disabilities; Office of Civil Rights, Region V, U.S. Department of Education, 401 South State Street, Room 700C, 05-4010, Chicago, IL 60605-1202

Unraveling the Special Education Maze: An Action Guide for Parents; B. Culter, 1981, Research Press, Champaign, IL

CREDITS

Appendicies "P" and "Q" are samples of a "Model District Policy" and a "School Information Form" that school districts can use when providing information to physicians regarding a student suspected of having an attention deficit hyperactivity disorder. The information requested on the "School Informatio. Form" represents the information that the physicians have indicated would be most helpful to them when evaluating such a student. These sample forms are the work products of a joint effort between the Michigan Department of Education and the Controlled Substance Advisory Commission. The following individuals were involved in this effort:

Anne Hansen, Ph.D., Director (Chairperson)
School Program Services
Michigan Department of Education
Lansing, Michigan

Bill Hurth, Departmental Analyst
Triplicate Prescription Program
Michigan Department of Commerce
Lansing, Michigan

Mary Jennings
Michigan Association of LD Educators
Oakland Schools
Waterford, Michigan

Elaine Womboldt, President
Learning Disabilities, Family, and Friends, Inc.
Lansing, Michigan

Ros Vandercook
Michigan Elementary & Middle School Principals Association
Hiawatha Elementary
Okemos, Michigan

Margaret McGlinchey, Ph.D.
Michigan Association of School Psychologists
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JoAnne Becker
Michigan Education Association
Woodhaven Schools
Flat Rock, Michigan

Shari Bohnet, President
A.D.D. Association, Ch.A.D.D. of Wayne and Oakland Counties
Livonia, Michigan

Ada Bird
Michigan Association of School Nurses
Davison, Michigan

Robert Shaw
Michigan Association of School Administrators
Huron Valley Schools
Highland, Michigan

James Dillion, M.D.
Michigan State Medical Society
University of Michigan Medical Center
Ann Arbor, Michigan

APPENDIX P

MODEL DISTRICT POLICY

SUBJECT: Referral to Physician

Whenever there are students who display learning or behavior problems, the role of school personnel does not include medical diagnosis or the referral of students to individual physicians or clinics for treatment. Further it does not include making recommendations that medication is appropriate. The role of school personnel is to:

1. Identify behavioral/learning problems.

2. Measure the extent of the problem--stating the frequency, the intensity and the duration.

3. Develop appropriate instructional strategies and interventions which address identified behavior/learning problems.

4. Provide information to serve as part of the basis upon which a physician can make related decisions.

To implement this policy the administration will:

1. Inform staff members of the policy and its stipulations.

2. Support inservice designed to develop and enhance knowledge and skills in the following areas:

   a. Identifying behavioral/learning problems.

   b. Measuring the extent of the problem--stating the frequency, the intensity and the duration.

   c. Developing appropriate instructional strategies and interventions which address identified behavioral/learning problems.

   d. Providing information to serve as part of the basis upon which a physician can make a diagnosis. (Sample form attached.)

3. Develop and implement a system for keeping track of referrals to physicians.

(This form was adapted from policy language developed by the Lamphere Schools)

APPENDIX Q

SCHOOL INFORMATION FORM

Identifying Information

Name: _____ School: _____

Address: _____ Address: _____

Birthdate: _____ Telephone Number (School): _____

Grade: _____

Principal: _____ Teacher: _____

Parent Permission to Release Information to Physician

_____ _____

Signature Date

Attach Standardized Behavior Rating Scale.

		Yes	No
I. A.	Possesses skills to succeed in present curriculum		
B.	Passes written tests		
C.	Passes oral tests		
D.	Does well with daily schedule		
E.	Completes homework accurately		
F.	Tries to complete assignments		
G.	Cares about achievement		
H.	Intrudes on others in classroom		
I.	Isolate from peers and teachers		
J.	Engages in excessive talking with peers		
K.	Aggressive with peers		
L.	Performs best in one-on-one with teacher		
M.	Acts like class clown		
N.	Frustrates easily on assignments		
O.	Follows oral directions		
P.	Follows written directions		
Q.	Excluded from school (now or ever)		
R.	Suspended from school (now or ever)		
S.	Receives speech or language services		
T.	Retained a grade		
U.	Avoids attending school		
V.	Twenty-five (25) or more absences this year		
W.	Initiates interaction with peers appropriately		
X.	Initiates interaction with adults appropriately		
Z.	Acts before thinking		
AA.	Weighs consequences before making decisions		
BB.	Ability to delay gratification		
CC.	Can wait turn		

II. Receives Special Education Services? o LD o Yes o No

If yes, under what certification? _____

III. Primary language, if different from English

Parent _____

Child _____

IV. Being tested or had psychological testing? o Yes o No

If "yes" please list names of all tests, including educational achievement tests.

V. List any academic subjects not passed by grade level. _____

_____

VI. Needs corrective glasses: o Yes o No

Needs hearing aid(s) or has hearing deficiency? o Yes o Yes

VII. Number of school changes child has had since kindergarten. _____

VIII. Briefly summarize yearly teacher comments. (1-2 sentences for each year.)

IX. Briefly summarize any recorded relevant health issues or concerns.

X. Student Observation

1. Student's behavior during independent work

   Teacher observation

   2nd Observer

2. Describe the student's behavior during teacher-directed activities.

   Teacher Observation

   2nd Observer

3. How does student's behavior compare with other students in the classroom.

   Teacher Observation

   2nd Observer

APPENDIX R

MEDICATIONS USED IN THE TREATMENT OF ATTENTION DEFICIT DISORDER

Expectations of Treatment

Increased ability to concentrate for a period of time

Increased ability to pay attention for a brief encounter and to sustain attention

Increased ability to tolerate normal distractions of the classroom such as other children talking or moving about

Decreased impulsive behavior such as blurting out or grabbing for things

There is hope that the above changes may result in the following outcomes:

Increased opportunity for learning

Improvement in academic standing

Improvement in self-esteem

Improvement in peer relationships

It is important, however, that the child, family, teacher, therapist and physician understand that many factors influence a child's learning, self-esteem and social relationships. The medication may enable a child to concentrate and complete work but will not necessarily result in better grades. The reasons for this may include co-existence of a learning disability or previous failure to learn the basic material which then makes it hard for a child to succeed at grade level. The medication may decrease a child's impulsive behavior so that other children are not always offended by this child but that alone may not be enough to make up for the previous attitude children and adults may have toward the child.

MOST COMMON MEDICATIONS USED IN THE TREATMENT OF ATTENTION DEFICIT DISORDER

The following are possible side effects. The list is not comprehensive. All medications should be discussed with your physician.

Drug of Choice: Methylphenidate (Ritalin)

Type of drug: Stimulant

Side Effects:
- Appetite suppression
- Lability of mood
- Sedation
- Tendency to overly focus
- Unusual agitated behaviors
- Increased heart rate
- Increased blood pressure
- Changes in growth pattern
- Tic movements

Advantage:
- Fewest side effects
- Flexible dosing possible
- Eliminated from body in hours

Alternate Choice: Pemoline (Cylert)

Type of drug: A different class of stimulant

Side Effects:
- Liver dysfunction
- Unusual movements of face, arms, hands
- Tic movements
- Unusual agitated behaviors
- Appetite suppression

Advantage: Once daily dosing

Alternate Choice: Desipramine (Norpramin)

Type of drug: Tricyclic antidepressant

Side Effects:
- Cardiac dysrrythmia
- Very toxic in overdose

Advantage:
- May be effective when others have failed
- Can be used with tic disorders
- May be effective with co-morbid conditions such as conduct disorder

Alternate Choice: Dextroamphetamine (Dexedrine)

Type of drug: Stimulant

Side Effects: Appetite suppression
Restlessness
Irritability
Insomnia
Increased heart rate
Increased blood pressure

Advantage: May be available in a liquid preparation. May be useful when other medications have not been effective.

Other medications less often used to treat ADHD include clonidine (Catapres), fluoxetine (Prozac), bupropion (Wellbutrin). These may be used when co-morbid conditions exist with ADHD.

It should be noted that all alternate medications carry more significant side effects that must be weighed against the possible advantages of using medication for ADHD. A family may decide to try educational and psychological interventions rather than take the risk of side effects with any of these medications.

APPENDIX S

Promising Practices in ADHD from around the Nation on ADHD in the Classroom

I. Promising Practices from Around the Nation

A. Dr. Robin is a consultant to the Federal Resource Center (FRC) at the University of Kentucky. The FRC has been conducting a national survey of promising practices for assessing and treating ADHD children in the classroom. They collected over 150 descriptions of promising practices from educators around the nation. Their advisors, including Dr. Robin, have evaluated and rated these practices. They will be preparing a written document summarizing these practices.

B. Dr. Robin has permission to share several of these practices with you, as samples of how educators in other parts of our nation are coping with ADHD in the schools.

C. The Guardian Angel Program. By Barbara J. Seaman, Reading Specialist, Cooper Junior High School, Buffalo Grove, Illinois.

1. Purpose: To help ADHD and other students acquire better study and organizational skills. Her program was implemented for students who had been assigned to have a resource room as part of their daily program.

2. Practice: ADHD students report to Ms. Seaman at 3:00 P.M. for a 35-minute study hall. She checks up on whether they are keeping abreast of their assignments and have their materials. She has designed monitoring forms to send to teachers and parents to keep them informed.

3. At the elementary level, she calls herself a "guardian angel." At the high school level, the program was renamed "The academic advisor program."

4. The costs are negligible. The program has been well-received and is used throughout her school district.

D. Using Cooperative Learning through Drama to enhance self-esteem and build community support for ADHD students. Pauline Rogers and Ellen Metzner, Resource Room Teachers. Southside Elementary School, Marion, South Carolina.

1. Purpose: Involve ADHD students, parents, teachers, and local businesses in a cooperative learning project which will enhance the student's self-esteem and teach selected skills. Designed at the 3rd or 4th grade level.

2. Practice: Pick a puppet play that contains a moral or plot emphasizing the importance of academics, self-concept, and perseverance.

   a. Involve the music teacher in preparing songs for the play.

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b. Involve the art teacher in designing and making the puppets for the play.

c. Classroom teacher guides students to use computer program such as Print Shop to design programs, invitations, etc.

d. Parents are sent information packet using library and similar resources to provide material that ties into the theme of the play.

e. Parent volunteers help students construct puppets and puppet stage. Took about 2 months.

f. Students divided up to be responsible for backdrop, puppeteers, and choir.

g. Local businesses asked to donate material, and are listed in the program.

3. Outcomes:

a. Fifty percent of the parents helped out.

b. Music, art, and regular teachers were supportive and cooperated.

c. Eight local businesses donated materials.

d. Students were helped to sharpen their attentional skills, social skills, and reading/spelling skills.

E. Using School Nurses to Administer Psychoactive Medication. Gail Gall, R.N., and Elissa Simard, R.N., Beverly Schools, Beverly, MA.

1. Purpose: Facilitate administration of medication in school in a state where the law requires that a registered nurse be involved.

2. Practice: One nurse follows a careful schedule of traveling between several school buildings throughout the day to administer medication to ADHD children.

3. The nurse does a lot more than simply administer medication:

a. Early screening of possible ADHD children.

b. Informing parents about ADHD.

c. Running groups to educate parents about ADHD.

d. Answering teacher and administrative questions.

e. Being an ADHD resource for the school district.

F. The Tic Tac Toe Game. Terry Illes, Ph.D., School Psychologist, Sprucewood Elementary School, Sandy, Utah.

@1992 ADHD Programs of Michigan

1. Purpose: Increase the ADHD student's rate of work productivity in the regular classroom, particularly independent seat work.

2. Practice:

   a. Design a Tic Tac Toe card with a three by three grid (9 squares).

   b. Each grid is labeled with one letter: A to I.

   c. Within each grid, there is a pocket in which to place one of the Tic Tac Toe Tokens.

   d. Object of game: student must place 3 tokens in a row, giving the student Tic Tac Toe.

   e. Each token is marked with letter from A to I and a number from 1 to 9.

   f. The number of the token informs the student how much work must be accomplished at that time.

   g. The teacher predetermines the meaning of the token numbers. For example, 5 might mean 5 math problems or 5 word definitions.

   h. Tokens are placed in a box.

   i. Student selects one token and then completes the work indicated on the token.

   j. Afterwards, student puts token in matching pocket on the Tic Tac Toe card.

   k. Student keeps picking tokens until he/she gets Tic Tac Toe.

   l. Rewards are provided for winning the game.

3. Advantages of this practice:

   a. Converts work into game-like format.

   b. Breaks work down into small units.

   c. Provides frequent feedback.

   d. Easy to implement and not costly.

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APPENDIX T

BOOKS/ARTICLES FOR PROFESSIONALS ON ADHD

Barkley, R. (1990). Attention Deficit Hyperactivity Disorder: A Handbook For Diagnosis and Treatment. New York: Guilford Publications.

Barkley, R. (1991). Attention Deficit Hyperactivity Disorder: A Clinical Workbook. New York: Guilford Publications.

Barkley, R. (1987). Defiant Children. New York: Guilford Press.

Barkley, R., Fischer, M., Edelbrock, C.S., & Smallish, L. (1990). The Adolescent Outcome of Hyperactive Children Diagnosed by Research Criteria. I. An 8 year prospective follow-up study. Journal of Child Psychology and Psychiatry, Vol. 29: pp 546-557.

Barkley, R.A., Fischer, Edelbrock, C.S., & Smallish, L. (1991). The Adolescent Outcome of Hyperactive Children Diagnosed by Research Criteria. III. Mother-child interactions, family conflicts, and maternal psychopathology. Journal of Child Psychology and Psychiatry, Vol. 32: pp 233-255.

Braswell, L., & Bloomquist, M.L. (1991). Cognitive-Behavioral Therapy with ADHD Children. New York: Guilford Press.

Campbell, S. (1990). Behavior Problems in Preschool Children. New York: Guilford Press.

Gittelman, R., Mannuzza, S., Shenker, R., & Bonagura, N. (1985). Hyperactive Boys Almost Grown Up. Archives of General Psychiatry, Vol. 42: pp 937-947.

Goldstein, S., & Goldstein, M. (1990). Managing Attention Disorders in Children: A Guide for Practitioners. New York: Wiley Press.

Kendall, P., & Braswell, L. (1984). Cognitive Behavioral Therapy for Impulsive Children. New York: Guilford Press.

Ullmann, R.K., Sleator, E.K., & Sprague, R.L. (1991). ADD-H: Comprehensive Teacher's Rating Scale (ACTERS) Rating Profiles and Manual. Champaign, Illinois: MetriTech, Inc. 1-800-747-4868.

Weiss, G., & Hechtman, L.T. (1986). Hyperactive Children Grown Up. New York: The Guilford Press.

Fowler, M.C. (1990). Maybe You Know My Child. Birch Lane Press.

Friedman, R., & Doyal, G. T. (1982). The Hyperactive Child. St. Clair Shores: Educational Resources Clinic.

Gordon, S. (1990). ADHD/Hyperactivity: A Consumer's Guide. Syracuse, New York: GSI Publications.

Greenberg, G.S., & Horn, W.F. (1991). ADHD: Questions and Answers for Parents. Champaign, Illinois: Research Press.

Ingersoll, B. (1988). Your Hyperactive Child. New York: Doubleday.

Wender, P. (1986). The Hyperactive Child, Adolescent, and Adult. New York: The Oxford Press.

BOOKS FOR CHILDREN ON ADHD

Gordon, M. (1991). Jumpin' Johnny: Get Back to Work. Syracuse, New York: GSI Press.

Gordon, M. (1991). My Brother's A World-Class Pain: A Siblings Guide to ADHD. Syracuse, New York: GSI Press.

Nadeau K., & Dixon, E. (1991). Learning to Slow Down and Pay Attention. Chesapeake Psychological Services.

Quinn, P.O., & Stern, J. M. (1991). Putting on the Brakes. New York: Magination Press

BOOKS FOR PROFESSIONALS ON SCHOOL/FAMILY ASSESSMENT/INTERVENTION

Anderson, C.M., & Stewart, S. (1982). Mastering Resistance. New York: Guilford Press.

Brigham, T.A. (1988). Self-Management for Adolescents. New York: Guilford Press.

Forgatch, M., & Patterson, G. (1989). Parents and Adolescents Living Together. Part 1: The Basics. Part 2: Family Problem Solving. Castalia Publishing Company, P.O. Box 1587, Eugene, Oregon 97440..

Goyette, C.H., Conners, C.K., & Ulrich, R.F. (1978). Normative Data on Revised Conners Parent & Teacher Rating Scales. Journal of Abnormal Child Psychology, 221-236.

Grotevant, H.D., & Carlson, C.I. (1989). Family Assessment. New York: Guilford Press.

Kelly, M.L. (1990). School-Home Notes. New York: Guilford Press.

McGoldrick, M., Pearce, J.K., & Giordano, J. (1982). Ethnicity and Family Therapy. New York: Guilford Press.

Robin, A. L. (1990). Training Families With ADHD Adolescents. In Barkley, R. (1990) handbook.

Robin, A. L., & Foster, S. L. (1989). Negotiating Parent-Adolescent Conflict: A Behavioral Family Systems Approach. New York: Guilford Publications.

Robin, A., Koepke, T., and Moye, A. Multidimensional Assessment of Parent-Adolescent Conflict. Psychological Assessment: A Journal of Consulting & Clinical Psychology, in press.

Wolfe, D.A. (1991). Preventing Physical and Emotional Abuse of Children. New York: Guilford Press.

Ingham Intermediate School District
2630 West Howell Road • Mason, MI • 48854 • 517/676-1051

PHYSICIAN RESPONSE FORM

Parent consent for release of information: _____ _____
(Signature) (Date)

TO: _____, Ingham Intermediate School District

FROM: _____
(Physician's name)

On _____, I have examined _____, in regard to
(Date) (Name of student)
Attention Deficit Hyperactivity Disorder (ADHD), and determined the following:

1._____ The student does not have ADHD.

_____ The student has ADHD.

2._____ No medication has been prescribed.

_____ Medication has been prescribed.

Name of Medication _____

Dosage _____

3._____ I do not require further information.

_____ Send me the Side Effects Checklist and/or teacher's observations at _____ intervals.

4. Additional comments and/or other medical diagnostic information:

_____

_____

_____ _____
(Physician's signature) (Date)

TK:add-guide.

The Ingham Intermediate School District is an Affirmative Action/Equal Opportunity District.

APPENDIX V

ADHD RATING SCALE

Child's Name _____ Age _____ Grade _____

Completed by _____

Circle the number in the *one* column which best describes the child.

	Not at All	Just a little	Pretty much	Very much
1. Often fidgets or squirms in seat.	0	1	2	3
2. Has difficulty remaining seated.	0	1	2	3
3. Is easily distracted.	0	1	2	3
4. Has difficulty awaiting turn in groups.	0	1	2	3
5. Often blurts out answers to questions.	0	1	2	3
6. Has difficulty following instructions.	0	1	2	3
7. Has difficulty sustaining attention to tasks.	0	1	2	3
8. Often shifts from one uncompleted activity to another.	0	1	2	3
9. Has difficulty playing quietly.	0	1	2	3
10. Often talks excessively.	0	1	2	3
11. Often interrupts or intrudes on others.	0	1	2	3
12. Often does not seem to listen.	0	1	2	3
13. Often loses things necessary for tasks.	0	1	2	3
14. Often engages in physically dangerous activities without considering consequences.	0	1	2	3

Note: From *The ADHD Rating Scale: Normative Data, Reliability, and Validity* by G. J. DuPaul, 1990, unpublished manuscript, University of Massachusetts Medical Center, Worcester. Reprinted by permission of the author. This form may be reproduced for personal use.

APPENDIX W

CHILD ATTENTION PROFILE

Child's Name _____ Child's Age _____

Filled Out by _____ Child's Sex [ ] M [ ] F

Directions: Below is a list of items that describe pupils. For each item that describes the pupil *now* or *within the past week,* check whether the item is *Not True, Somewhat* or *Sometimes True,* or *Very* or *Often True.* Please check all items as well as you can, even if some do not seem to apply to this pupil.

	Not true	Somewhat or sometimes true	Very or often true
1. Fails to finish things he/she starts.	[ ]	[ ]	[ ]
2. Can't concentrate, can't pay attention for long.	[ ]	[ ]	[ ]
3. Can't sit still, restless, or hyperactive.	[ ]	[ ]	[ ]
4. Fidgets.	[ ]	[ ]	[ ]
5. Daydreams or gets lost in his/her thoughts.	[ ]	[ ]	[ ]
6. Impulsive or acts without thinking.	[ ]	[ ]	[ ]
7. Difficulty following directions.	[ ]	[ ]	[ ]
8. Talks out of turn.	[ ]	[ ]	[ ]
9. Messy work.	[ ]	[ ]	[ ]
10. Inattentive, easily distracted.	[ ]	[ ]	[ ]
11. Talks too much.	[ ]	[ ]	[ ]
12. Fails to carry out assigned tasks.	[ ]	[ ]	[ ]

Please feel free to write any comments about the pupil's work or behavior in the last week.

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